

# ZAHRA ATLASBAF

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### Education

B.Sc., Electrical Engineering, University of Tehran, Tehran, Iran.  
M.Sc., Electrical Engineering (honors), Tarbiat Modares University, Tehran, Iran.  
Ph.D., Electrical Engineering (honors), Tarbiat Modares University, Tehran, Iran.

### Research Interests

Antennas, Metamaterials, Electromagnetic, Numerical Methods in Electromagnetic, Active & passive Microwave circuits, Active Integrated Antennas, Optics, Bio-Electromagnetic

### Awards

Distinguished Researcher of Electrical Engineering for the year 2020-2021 at TMU  
IEEE Senior Member since 2017  
Prominent Professor of Electrical Engineering for the year 2013-2014, at TMU  
Prominent Inventor of Electrical Engineering for the year 2012-2013, at TMU

### Patents

1. K. Hosseini, Z. Atlasbaf, "Analysis and Synthesis of Singly-Curved Microstrip Structures Utilizing Modified Schwarz-Christoffel Transformation", No. 81428, 2014
2. Z.Vahidpour, K. Forooraghi, A. Fotowat & Z. Atlasbaf, "Fast Frequency sensing by using Phase- Frequency detector", No. 77943, 2013
3. R.Shamsaee, Z. Atlasbaf, "Design and Implementation of a Dual-band Single Layer Reflectarray Antenna in X and K Bands", No.77044, Sept. 2012
4. R.Shamsaee, Z. Atlasbaf, 'Design and Implementation of Broadband Reflectarray Antenna for Radar and Space Satellite Applications', No. 73946, Jan. 2012

### Books

- 1- S. Hayati, Z. Atlasbaf, "Photovoltaic and Photothermal Solar Cell Design Principles: Efficiency/Bandwidth Enhancement and Material Selection", *chapter of the book*, "Solar Panels - Recent Advances and Future Prospects, ISBN 978-1-83768-678-01, 2023
- 2- S. Hayati, Z. Atlasbaf, "Green's function derivation for multilayered planar, cylindrical, and spherical structures with impedance boundary condition (IBC)" *chapter of the book*, "Electromagnetic Wave Propagation for Industry and Biomedical Applications" ISBN 978-1-83968-582-8, 2021
- 3- S. Hayati, Z. Atlasbaf, Mauro Cuevas" Scattering from Multilayered Graphene-Based Cylindrical and Spherical Particles", *chapter of the book* "NANOPLASMONICS", ISBN 978-1-78985-834-1, 2020
- 4- K. Hosseini, Z. Atlasbaf, "Application of Composite Right/Left-Handed Metamaterials in Leaky Wave Antennas", *chapter of the book* "Modern Antenna Systems", ISBN 978-953-51-4943-9, 2018

## Journal Papers

### **2025**

1. PEGAH NOCHIAN, ZAHRA ATLASBAF, KEYVAN FOROORAGHI, "Analytical Solution of Electromagnetic Fields in a Huygens Bianisotropic Metasurface Energy Harvester Under Vertical Dipole Illumination", *IEEE Access*, Vol. 3, pp. 152090-152102, <https://doi.org/10.1109/ACCESS.2025.3601897> , September 2025
2. P. Nochian, Z. Atlasbaf, "An ultra-wideband thin metamaterial linear cross-polarization conversion" *Scientific Reports*, <https://doi.org/10.1038/s41598-025-86764-8> , 2025

### **2024**

3. Ashkan Soleimani, Keyvan Forooraghi & Zahra Atlasbaf, "Phasor-based analysis of a neuromorphic architecture for microwave sensing", *Scientific Reports*, <https://doi.org/10.1038/s41598-024-66156-0> , 2024

### **2023**

4. Bahareh Amini, Zahra Atlasbaf, "Design and analysis of high-sensitivity tunable graphene sensors for cancer detection", *Optical and Quantum Electronics* (2023) 55:446, <https://doi.org/10.1007/s11082-023-04679-y>, 2023
5. Mehri Ziaee Bideskan, Zahra Atlasbaf, Andrei V. Lavrinenko, "The Extended Method of Lines for the Characterization of Dielectric Metasurfaces for Ultraviolet Chiral Sensing", *IEEE Transactions on Antennas and Propagation*, <https://doi.org/10.1109/TAP.2023.3320901>, 2023
6. SEYED MAHDI HOSSEINI AND ZAHRA ATLASBAF, "Analysis of tightly-coupled dipole phased array antennas with metasurface superstrate", *Scientific Reports*, <https://doi.org/10.1038/s41598-023-44680-9>, 2023
7. Shima Inanloo, Zahra Atlasbaf, "A CPW-fed fractal monopole antenna with a reduced ground plane in the frequency range of 500 MHz-5.5 GHz", *IET Microwaves, Antennas & Propagation*, <https://doi.org/10.1049/mia2.12418>, 2023

## **2022**

8. Mousa Abdollahvand, Eduardo Martinez-de-Rioja, Keyvan Forooraghi, Zahra Atlasbaf, José Antonio Encinar, Saptarshi Ghosh, Amir Ebrahimi, "Active frequency selective surface with switchable response for satellite communications in X and Ka bands", *International Journal of RF and Microwave Computer-Aided Engineering*, Vol. 32, No.9, e23255, <https://doi.org/10.1002/mmce.23255>, Vol. 71, No. 12, pp. 9728-9737, 2022
9. Bahareh Amini, Zahra Atlasbaf, "Two new broadband and tunable terahertz pyramid patch/disk absorbers based on graphene metasurface", *Photonics and Nanostructures - Fundamentals and Applications*, <https://doi.org/10.1016/j.photonics.2022.101048>, July 2022
10. Maryam Shadi, Mohammad Reza Tavakol, Zahra Atlasbaf, "Inverse design of compact power divider with arbitrary outputs for 5G applications", *Scientific Reports*, <https://doi.org/10.1038/s41598-022-17212-0>, 12:12844, 2022
11. Maryam Shadi, Zahra Atlasbaf, "Randomly overlap subarray feeding network to reduce number of phase shifter in 28GHz", *PLOS ONE*, <https://doi.org/10.1371/journal.pone.0277404>, December 8, 2022
12. Shiva Hayati Raad, Zahra Atlasbaf, "Dual-Band Reconfigurable Refractive Index Sensing Using All-Graphene Core-Shell Spherical Nanoparticles", *IEEE TRANSACTIONS ON NANOTECHNOLOGY*, VOL. 21, pp.137-142, <https://doi.org/10.1109/TNANO.2022.3152599>, 2022
13. Shiva Hayati Raad Zahra Atlasbaf, "Full Coverage of the Solar Spectrum and Beyond Using All-Manganese Plasmonic Shell Array", *Plasmonics*, Vol. 17, pp. 851–857, <https://doi.org/10.1007/s11468-021-01566-8>, 2022
14. Shiva Hayati Raad, Zahra Atlasbaf, Alessio Monti, Alessandro Toscano, AND Filiberto Bilotti, "On the surface impedance modeling of metasurfaces composed of graphene-coated spherical nanoparticles", *Journal of the Optical Society of America B*, Vol. 39, No. 3, pp. 917-923, <https://doi.org/10.1364/JOSAB.448936>, March 2022
15. Alessio Monti, Shiva Hayati Raad, Zahra Atlasbaf, Alessandro Toscano, AND Filiberto Bilotti, "Maximizing the forward scattering of dielectric nano antennas through surface impedance coatings", *Optics Letters*, Vol. 47, No. 10 / 15, pp. 2386-2389, <https://doi.org/10.1364/OL.456958>, May 2022
16. SEYED MAHDI HOSSEINI AND ZAHRA ATLASBAF, "Analysis of Connected Arrays and Capacitively Coupled Arrays", *IEEE Access*, pp. 28147-28154, <https://doi.org/10.1109/ACCESS.2022.3156594>, March 2022
17. Fatemeh Moharrami & Zahra Atlasbaf, "Stability study of the modified HIE-FDTD method for modeling graphene as a surface boundary condition", *Waves in Random and Complex Media*, <https://doi.org/10.1080/17455030.2022.2051770>, 2022

## **2021**

18. Shiva Hayati Raad, Zahra Atlasbaf, "Solar cell design using graphene-based hollow nano-pillars" *Scientific Reports*, <https://doi.org/10.1038/s41598-021-95684-2>, 2021
19. Shiva Hayati Raad, Zahra Atlasbaf, "Dual polarized engineering the extinction cross-section of a dielectric wire using graphene-based oligomers", *Scientific Reports*, <https://doi.org/10.1038/s41598-021-87145-7>, 2021

20. Raad, SH; Atlasbaf, Z; Cuevas, M," Dyadic Green's function for the graphene-dielectric stack with arbitrary field and source points", JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS, <https://doi.org/10.1364/JOSAB.427824> , Vol. 38, No. 8, pp. 2368-2375
21. AHAD SHEIKHOLESAMI, ZAHRA ATLASBAF," Novel Phase Distributions for Electronically Large Beam-Scanning Reflectarrays", *Scientific Reports*, <https://doi.org/10.1038/s41598-021-00883-6>, Vol. 11, 2021
22. ZAHRA LASEMIIMENI, ZAHRA ATLASBAF AND NIMA KARBASCHI," Dual-Functional Ultrawideband Antenna with High Fidelity Factor for Body Area Networks and Microwave Imaging Systems", *IEEE Access*, <https://doi.org/10.1109/ACCESS.2021.3104511>, VOL. 9, pp. 112930- 112941, 2021
23. MEHRI ZIAEE BIDESKAN, KEYVAN FOROORAGHI, ZAHRA ATLASBAF, ALI MEHRDADIAN AND ANDREI V. LAVRINENKO, "Method of lines for the analysis of tunable plasmonic devices composed of graphene-dielectric stack arrays", *Optics Express*, <https://doi.org/10.1364/OE.433185>, Vol. 29, No. 18 / 30 Aug 2021 / 28787
24. Shiva Hayati Raad, Zahra Atlasbaf "Bi-functional tunable reflector/high-Q absorber design using VO2 assisted graphene-coated cylinder array", *Optics Express* 17510, <https://doi.org/10.1364/OE.423129>, Vol. 29, No. 11 / 24 May 2021
25. Mehri Ziaee Bideskan, Keyvan Forooraghi & Zahra Atlasbaf, "Method of lines for analysis of plane wave scattering by periodic arrays of magnetically-biased graphene strips", *Nature Scientific Reports*, <https://doi.org/10.1038/s41598-021-86882-z>, (2021) 11:7588, 2021
26. F. Moharrami, Z. Atlasbaf," Stability Analysis of the SIBC Modeling of Graphene in the FDTD Method", *IEEE Transactions on Antennas and Propagation*, <https://doi.org/10.1109/TAP.2020.3019575>, Vol. 69, Issue 4, pp. 2421 – 2426, April 2021

## **2020**

27. Shiva Hayati Raad, Zahra Atlasbaf, Carlos J. Zapata-Rodríguez," Broadband absorption using all-graphene grating-coupled nanoparticles on a reflector", *Scientific Reports*, <https://doi.org/10.1038/s41598-020-76037-x>, 2020
28. Reza Shamsaee Malfajania, Alireza Gholipourb, and Zahra Atlasbaf," Linear to circular polarization converter single-layer reflectarray antenna", <https://doi.org/10.1080/02726343.2021.1864580>, *ELECTROMAGNETICS*, 2020
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30. P.Noehian, Zahra Atlasbaf," A Novel Single Layer Ultra-Wide Band Metamaterial Absorber", *Progress In Electromagnetics Research Letters*, [10.2528/PIERL20011406](https://doi.org/10.2528/PIERL20011406), Vol. 93, pp. 107–114, 2020
31. Z. Lasemiimeni, Z. Atlasbaf, "Impact of Fidelity Factor on Breast Cancer Detection", *IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS*, <https://doi.org/10.1109/LAWP.2020.3011801>, Vol. 19, No. 10, pp. 1649-1653, OCTOBER 2020
32. M. Shadi, Z. Atlasbaf," Meta-Heuristic Multi-Objective as an Affordable Method for Improving the Grating Lobe in a Wide Scan Phased Array Antenna", *Progress in Electromagnetics Research C*, vol. 103, pp. 155–166, 2020
33. Hayati Raad, Shiva, Atlasbaf, Zahra," Broadband continuous/discrete spectrum optical absorber using graphene-wrapped fractal oligomers", *Optics Express*, <https://doi.org/10.1364/OE.396500>, pp. 18049-18058, vol. 28, no. 12, 2020

34. A. Esmaeilnia, Z. Atlasbaf, "A Quadrupole Tensor Analysis Approach to Design a Broadband Absorber", *IEEE Access*, <https://doi.org/10.1109/ACCESS.2020.2984769>, pp. 65513- 65519, 2020
35. S.Tajik, Z. Atlasbaf, "Investigating Extraordinary Optical Transmission and sensing performance through periodic bilayer magneto-plasmonic structure", *Journal of Applied Physics*, <https://doi.org/10.1063/1.5116180>, vol. 127, no. 2, 2020
36. F. Moharrami, Z. Atlasbaf, "Simulation of Graphene-Dielectric multilayer metamaterial by implementing SBC model of graphene in the HIE-FDTD method", *IEEE Transactions on Antennas and Propagation*, <https://doi.org/10.1109/TAP.2019.2948505>, vol. 68, no. 3, pp. 2238- 2245, 2020
37. M. Abdolahvand, k. Forooraghi, Jose A. Encinar, Z. Atlasbaf, "A 20/30 GHz Reflectarray Backed by FSS for Shared Aperture Ku/Ka-Band Satellite Communication Antennas", *IEEE Antennas and Wireless Propagation Letters*, <https://doi.org/10.1109/LAWP.2020.2972024>, vol. 19, no. 4, pp. 566-571, 2020
38. M. Abdolahvand, K. Forooraghi, Jose A. Encinar, Z. Atlasbaf, Eduardo Martinez-de-Rioja, "Design and Demonstration of a Tri-band Frequency Selective Surface for Space Applications in X, K and Ka Bands", *Microwave and Optical Technology Letters*, <https://doi.org/10.1002/mop.32225>, pp. 1-10, 2020
39. F. Moharrami: Z. Atlasbaf, "Tunable GRIN Lensing Based on Graphene-Dielectric Multilayer Metamaterial", *J. Optics (IOP)*, <https://doi.org/10.1088/2040-8986/ab6425>, 22,025102 (9pp), 2020
40. Raad, SH; Atlasbaf, Z, "Broadband optical absorption using graphene-wrapped cross-hair/nano-rod combination", *JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS*, <https://doi.org/10.1080/09205071.2020.1835563>, Vol. 35, No. 3, pp. 305-314
41. Raad, SH; Atlasbaf, Z., "Broadband/multiband absorption through surface plasmon engineering in graphene-wrapped nanospheres", *APPLIED OPTICS*, <https://doi.org/10.1364/AO.400775>, Vol. 59, No. 28. pp. 8909-8917

## **2019**

42. M. Abdolahvand, K. Forooraghi, Jose. A. Encinar, Z. Atlasbaf, "Design and fabrication of a novel single-layer Ka-band reflectarray antenna,", *International Journal of Microwave and Wireless Technologies*, <https://doi.org/10.1017/S1759078719001582>, vol. 23, pp. 1-10, December 2019
43. Hayati Raad, Shiva, Zapata-Rodriguez, Carlos J, Atlasbaf, Zahra, "Multi-frequency near-field enhancement with graphene-coated nano-disk homo-dimers", *Journal of Optics Express*, <https://doi.org/10.1364/OE.27.037012>, vol. 27, no. 25, pp. 37012-37024, December 2019
44. Hayati Raad, Shiva; Atlasbaf, Zahra; Jalil Rashed-Mohassel; Mahmoud Shahabadi, "Scattering from Graphene-Based Multilayered Spherical Structures", *IEEE Transactions on Nanotechnology*, <https://doi.org/10.1109/TNANO.2019.2942972>, vol. 18, pp. 1129-1136, 2019
45. Hayati Raad, Shiva; Zapata-Rodriguez, Carlos J; Atlasbaf, Zahra, "Graphene-coated resonators with frequency-selective super-scattering and invisibility", *Journal of Physics D: Applied Physics*, <https://doi.org/10.1088/1361-6463/ab3fbc>, vol. 5, 495101(7 pages), 2019
46. Hayati Raad, Shiva; Atlasbaf, Zahra, "Tunable optical meta-surface using graphene-coated spherical nanoparticles", *AIP Advances* 9, 075224; <https://doi.org/10.1063/1.5101000>, 2019
47. Hayati Raad, Shiva, Atlasbaf, Zahra, "Dyadic analysis of a cylindrical wire consisting of a cover with fully-populated surface conductivity tensor", *Journal of Optics Express* 21214, vol. 27, no. 15, <https://doi.org/10.1364/OE.27.021214>, 2019

48. Hayati Raad, Shiva, Zapata-Rodriguez, Carlos J, Atlasbaf, Zahra," Multi-frequency Super-Scattering from Sub-Wavelength Graphene-Coated Nanotubes", *Journal of the Optical Society of America B*, vol. 36, no. 8, pp. 2292-2298, <https://doi.org/10.1364/JOSAB.99.099999>, 2019
49. Shiva Hayati Raad, Zahra Atlasbaf, Mahmoud Shahabadi, Jalil Rashed-Mohassel," Dyadic Green's Function for the Tensor Surface Conductivity Boundary Condition", <https://doi.org/10.1109/TNANO.2019.2942972>, vol. 55, no. 11, *IEEE Transactions on Magnetism*, 2019
50. Shiva Hayati Raad, Zahra Atlasbaf," Equivalent RLC Ladder Circuit for Light Scattering by Graphene-Coated Nano-Spheres", *IEEE Transactions on Nanotechnology*, vol. 18, pp. 212-219, <https://doi.org/10.1109/TNANO.2019.2893350>, 2019

## **2018**

51. K. Hosseini, Z. Atlasbaf," Simple Intuitive Relations Concerning the Effect of Boundaries on the Stability of the FDTD Method", *IEEE Transactions on Antennas and Propagation*, <https://doi.org/10.1109/TAP.2018.2866990>, vol. 66, no.12, pp. 7483-7487, Dec. 2018
52. P.Fathi, Z. Atlasbaf, K. Forooraghi," Compact Dual-Wideband Bandpass Filter Using CSRR Based Extended Right/Left-Handed Transmission Line", *Progress in Electromagnetic Research C*, <https://doi.org/10.2528/PIERC17100206>, vol. 81, 21–30, 2018
53. K. Hosseini, Z. Atlasbaf," Efficient Three-Step LOD-FDTD Method in Lossy Saturated Ferrites with Arbitrary Magnetization", *IEEE Transactions on Antennas and Propagation*, <https://doi.org/10.1109/TAP.2018.2796383>, vol. 66, no.3, pp. 1374-1383, March 2018
54. K. Hosseini, Z. Atlasbaf, "PLRC-FDTD Modeling of General GSTC-Based Dispersive Bianisotropic Metasurfaces", *IEEE Transactions on Antennas and Propagation*, <https://doi.org/10.1109/TAP.2017.2769691>, vol. 66, no.1, pp. 262-270, January 2018

## **2017**

55. M.Mohammadi, P.Alizadeh, Z.Atlasbaf," Investigation on electrical properties of wollastonite glass-ceramic and wollastonite glass-ceramic/TiO<sub>2</sub> composites", *Physics and Chemistry of Glasses-European Journal of Glass Science and Technology Part B*, vol. 5, pp. 201-206, 2017
56. M. Bozorgi, Z. Atlasbaf," Theoretical Investigations on a Class of Double-Focus Planar Lens on the Anisotropic Material", *Optics Communications*, <https://doi.org/10.1016/j.optcom.2017.01.006>, vol. 391, pp. 48-56, 2017
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## **2016**

58. A. Sedghara, Z. Atlasbaf," A Novel Single Feed Reconfigurable Antenna for Polarization and Frequency Diversity", *International Journal of Microwave and Wireless Technologies*, <https://doi.org/10.1017/S1759078716001240>, 7 pages, Dec. 2016
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60. P.Fathi, Z. Atlasbaf, K. Forooraghi," A Modified Extended Right/Left Handed Layout Loaded With CSRR For Quad Band Applications", *Progress in Electromagnetic Research Letters*, <https://doi.org/10.2528/PIERL16030404>, vol. 61, page 7-12, 2016

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65. A. Khaledian, Z. Atlasbaf, "Dual Band and Dual Mode Microstrip Antenna for Body Centric Wireless Communication", *The Applied Computational Electromagnetics Society Journal (ACES)*, Vol. 31, No. 4, pp. 417-422, April 2016
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## **2015**

70. Hojjatollah Fallahi, Zahra Atlasbaf, "Bandwidth Enhancement of a CPW-fed Monopole Antenna with Small Fractal Elements", *International Journal of Electronics and Communications (AEÜE)*, Vol. 69, pp. 590-595, 2015
71. Zahra Hamzavi Zarghani and Zahra Atlasbaf, "A New Broadband Single-Layer Dual-Band Reflectarray Antenna in X and Ku Bands", *IEEE Antenna and Wireless Propagation letter*, <https://10.1109/LAWP.2014.2374351>, Vol.14, pp.602-604, 2015
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## **2014**

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74. Majid Norooziarab, Zahra Atlasbaf, Farhad Farzami, "Substrate Integrated Waveguide Loaded by 3Dimensional Embedded Split Ring Resonators", *International Journal of Electronics and Communications (AEÜE)*, Vol. 68, pp. 658-660, 2014
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## **2013**

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78. Farzaneh Ahmadi, Keyvan Forooraghi, Zahra Atlasbaf, Bal Virdee, "A New Dielectric Resonator Antenna Element for Circularly Polarized Reflectarray Antenna", *Electromagnetics*, 33:8, pp. 575-582, 2013
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81. F. Ahmadi, K. Forooraghi, Z. Atlasbaf, Bal Virdee, "Dual Linear Polarized Dielectric Resonator Reflectarray Antenna", *IEEE Antenna and Wireless Propagation letter*, <https://10.1109/LAWP.2013.2259611>, pp. 635-638, 2013
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84. Zeynab Vahidpoor, Keyvan Forooraghi, Ali Fotowat-Ahmadi, and Zahra Atlasbaf, "Fast adjustable sensing circuit for cognitive radio applications", *International Journal of Circuit Theory and Applications*, <https://10.1002/cta.1878>, 2013
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65. Zahra Atlasbaf, Keyvan Forooraghi, "Radiation Pattern Calculation of Nearly Cylindrical Antennas Using the Spectrum of Two-Dimensional", *Antennas and Propagation International Symposium, IEEE 2002*

## **Editorial Board of Journals**

1. Editorial Board Member of Scientific Reports (sep.2022- )
2. Editorial Board Member of Scientia Iranica Journal
3. Reviewer of IEEE Transaction on Microwave Theory and Techniques
4. Reviewer of IEEE Transaction on Antennas and Propagation
5. Reviewer of Antenna and Wireless Propagation Letter
6. Reviewer of Journal of Electromagnetic Waves and Applications
7. Reviewer of Progress in Electromagnetic Research
8. Reviewer of IET

## **Memberships in Societies**

1. IEEE Senior Member (2017) (AP & MTT& WIE)
2. ACES Member

## **Thesis Supervision**

Supervising and advising over 40 Master's theses and Ph.D. dissertations in the mentioned research fields.

### **Ph.D. Thesis Supervised**

1. Mahdi Hosseini, ' Low-profile Wide-band Wide-angle array antennas', March, 2025
2. Maryam Shadi, ' Advanced Array Antenna for 5th Wireless Communication Systems'', Sept. 2022

3. Fatemeh Moharami,' Analysis and design of tunable multilayer graphene-dielectric metamaterial structures", Summer 2020
4. Shiva Hayati raad,' Ananalysis of Graphene-Based Multilayered Conformal Periodic Structures", Sept. 2019
5. Keyhan Hosseini,' Unconditionally Stable FDTD in Complex Media", Feb. 2018
6. Mahdieh Bozorgi,'Analysis of Plasmonic Nano-Antenna Supported by Anisotropic Media', Jan. 2017
7. Mahmood Rafaei Booket,'Analysys of Reflectarray Antenna supported by Uniaxial and Biaxial Anisotropic Layers', May 2016
8. Omid Zandi, 'Phase and Group Velocities of Electromagnetic Plane Waves in Bi-Anisotropic and Moving Media', Winter 2011

#### **Ph.D. Thesis Advised**

1. Mousa Abdollahvand,'
2. Zeynab Vahidpour,'
3. Nasrin Amiri,'

#### **M.Sc. Thesis Supervised**

- 1.
2. S. Inanloo,"", Jan. 2020
3. A. Shiekhaleslam,' ', Feb. 2019
4. P. Nochian,' Design and Fabrication of a Wideband Metamaterial Absorber", Jan. 2019
5. M. Keshavarz,'Design and implementation of beam shaped reflectarray antenna', Sep. 2018
6. Sh. Tajik,'Analysys and Design a Megneto-Dielectric Plasmonic Nano Antenna', Feb. 2018
7. H. dolatkhah,' ', Mar. 2018
8. R.Masoumi,'Design and Fabrication of LMDS Base Station Antenna', Aug. 2017
9. M. Kalaki,' Design and Implementation of Dielectric Resonator Filter for Satellite Application', May 2017
10. Z. Lasemi, 'Design & Fabrication of UWB antennas for Microwave Imaging Tomur Detection', Apr. 2017
11. Z. Sharifi,' Design a novel carpet cloak by using transformation optics', Jan. 2016
12. P.Fathi,' A novel layout for Metamaterial base ECRLH structures and their applications in microwave components", December 2015
13. M.Niayesh,' Design and fabrication of a novel CRLH leaky-wave antenna', February 2015
14. J.Aliasgari,' Design and Fabrication of Radial Line Slot Array Antenna', March 2015
15. M. Zolfaghari,' Study and Design of a Modified Conical Goubau Waveguide', Fall 2014
16. Mohammad Davari,' Scattering Reduction of Multilayered Cylindrical Structures with Dielectrics and Metamaterials in NIR Spectrum Frequency, Incident Plane Wave with Arbitrary Polarization', April, 2014 (Maleke Ashtar Univ.)



17. Samaneh Keshavarzi, 'Analysis and fabrication of a bandpass filter based on metamaterials', March 2014
18. Amir Hossein Saghanejad, 'Design and Implementation of a New Metamaterial-Loaded Multiband Compact Planar Antenna', Feb. 2014
19. Zahra Hamzavi, 'Design and Implementation of a Multi-band Microstrip Reflectarray Antenna', Jan. 2014
20. Hojjatollah Fallahi, 'Design and Fabrication of a UWB Antenna for Breast Tumor Detection', Feb. 2013
21. Ailar Sedghara, 'Design of a Dual Band, Dual Polarized Reconfigurable Single Port Antenna for WLAN Application', Feb. 2013
22. Keyhan Hosseini, 'Design and Fabrication of Conformal Leaky-Wave Antennas Utilizing Periodic Structures and Metamaterials', Feb. 2013
23. Seiran Khaledian, 'Design and Implementation of a Dual Band and Dual Pattern Antenna for On-body and Off-body Communication Modes in Body Centric Wireless Application', Dec. 2012
24. Abed Pour Sohrab, 'Design and Fabrication of a Wideband Microwave Absorber by Periodic Structures', Spring 2012
25. Reza Shamsaee Malfajani, 'Design and Implementation of a Dual-Band Microstrip Reflectarray Antenna (X & K Bands)', Feb. 2012
26. Majid Norooziarab, 'Design and Implementation of an SIW Reconfigurable Filter in Two Bands', Winter 2011
27. Vahideh Anami, 'Design and Implementation of a New Leaky Wave Antenna by Metamateria', Summer 2011
28. Mehdi Mahdavi, 'Design and Implementation of a New Compact Planar UWB Antenna for Communication Applications', Spring 2011
29. Mohammad Amin Nikravan, 'Design and Implementation of a Compact Dual-Band Microstrip Bandpass Filter', Winter 2010
30. Somayeh Rezvani, 'Design, Synthesis and Manufacture of a Dual Band Microstrip Antenna with Switchable Polarization', April 2010
31. Maryam Mohammadi, 'Wollasonite Glass-(second component) Composite Synthesis and Electrical Property Studies', June 2009
32. Mostafa Naghipourfar, 'Design and Analysis of a New Dual-Band Metamaterial in Microwave Frequencies', June 2009
33. Hossein Sabri, 'Miniaturized Triple-Band Microstrip Slot Antenna', Fall 2008
34. Zeynab Vahidpour, 'Optimization of Monopulse Antenna Pattern by Using Pattern Search Algorithm'-Summer 2007
35. Omid Zandi, 'Analysis and Design of Multilayer Dielectric Resonator Antennas', August 2007
36. Seyed Ali Hosseini, 'A Novel Compact Planar UWB Antenna in the FCC Frequency Band', April 2007
37. Mehdi Nosrati, 'Synthesis and Analysis of the New Compact Band-Pass Filter Using Coupled Transmission Lines' – Autumn 2006

38. Hamed Movahedi Pour, 'Performance Optimization of Direction of Arrival Estimator Using Neural Networks with Genetic Algorithm and Ant Colony Optimization Approach' - November 2006
39. Pooria Varahram, 'Adaptive Digital Predistortion for High Power Amplifiers', Summer 2005

### **M.Sc. Thesis Advised**

1. H.Montazeri, ', June 2016
2. Mohsen Khadir, ' Feb. 2014
3. Sajjad Mohammadi, 'April 2013
4. Farzaneh Ahmadi, 2013
5. Sepideh Fallahzadeh, 2013
6. Reza Dehbashi, 2007
7. Ali Razmtouz, 'Design and Analysis of Active Patch Antennas - Feb. 2007', Advise
8. Rosa Seyf, 'Design and Analysis of a Compact and Dual Band Rectangular Microstrip Antenna to Operate in Frequencies 2GHz and 5GHz, Winter 2007 Adviser
9. Elyas Roudgar, 'Design and Analysis of a Broadband Microstrip Array Antenna for LMDS Applications - Dec. 2007', Adviser
10. Mohsen Golpour Dehsari, 'Design and Analysis of Compact Low Pass Filter Based using DGS', Adviser 2009
11. Hadi Bahrami Abarghoei, 'Design and Analysis of Compact Waveguide Filters Based using Metamaterials', Adviser, 2009
12. Alireza Mahmoudian, 'Design of Leaky Wave Antenna by Using Periodic Structures', Adviser, 2008
13. رجانه فرهودی, 'روشهای نامساوی ماتریسی خطی برای طراحی فیدبک خروجی چند منظوره بر اساس تئوری پایداری تعمیم یافته', Adviser
14. 'پریوش حاجیان', 'جهت یابی سیگنال ارسالی در آرایه دایره ای با کاهش اثر کوپلینگ', Adviser

### **Courses Taught**

- Advanced Mathematics II, MSc
- Microwave II, MSc
- High Frequency Circuit Design, MSc
- Numerical Methods in Electromagnetic, PhD
- Special Topics on RF/Microwave Circuit Design for Wireless Applications, PhD
- Metamaterials, PhD
- Special Topics on Conformal Antennas, PhD
- Conformal Antennas, PhD
- Phased Array Antennas, PhD
- Engineering Circuit Analysis, MSc
- Microwave I, MSc
- Antenna Theory, MSc

### **Professional Experiences**

1. Member of the Technical Program Committee of the Conference on Millimeter Wave and Terahertz Technologies (MMWaTT)-2023
  2. Associate Professor, faculty of Electrical & Computer Engineering, 2011- present, Tarbiat Modares University, Tehran, Iran
  3. Director of Satellite Com. Lab. of Elect. Eng. Dept., 2010-present, Tarbiat Modares University, Tehran, Iran
  4. Director of Metamaterial Com. Lab. of Elect. Eng. Dept., 2007-present, Tarbiat Modares University, Tehran, Iran
  5. Vice-Dean for Academic Affairs, 2014-2016, Faculty of Electrical and Computer Engineering, Tarbiat Modares University, Tehran, Iran
  6. Director of Communications Engineering Group, April 2007-April 2012, Tarbiat Modares University, Tehran, Iran
  7. Assistant Professor, faculty of Electrical & Computer Engineering, Aug. 2005-2011, Tarbiat Modares University, Tehran, Iran
  8. Tehran, Iran Nokia's GC consultant in MCT (BTS & BSS) tenders, 2004 -2005,
  9. Senior Researcher RF Group, Mobile Communications techniques, Tehran, Iran, 1999 - 2004
  10. Senior Researcher RF Group, Iranian Research Organization for Science and Technology, Tehran, Iran, 1997 - 1999
  11. Senior Researcher Antenna & RF Group, Antenkar, Tehran, Iran Senior Researcher Antenna & RF Group, 1997 - 1999
  12. Research Engineer, Tarbiat Modares University, Tehran, Iran, 1996 - 1998
  13. Research Engineer, ITRC Tehran, Iran, 1995 - 1996
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