CURRICULUM VITAE

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Electrical and Computer Engineering
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EDUCATION

Ph.D. Electrical Engineering (Communication), Shahed University, Tehran, Iran
Thesis title: "Analysis, Design and Simulation of Photoconductive Antennas with Improved Radiation Performance Using Plasmonic Structures in Terahertz Frequency Band" Feb. 2017

M.Sc. Electrical Engineering (Communication), K. N. Toosi University of Technology, Tehran, Iran
Thesis title: "Design, Simulation and Implementation of an Ultra Wide Band TEM Horn Antenna" Aug. 2009

B.Sc. Electrical Engineering, Sattari University, Tehran, Iran Aug. 2005

RESEARCH INTERESTS

Machine Learning and Deep Learning Algorithms in Electromagnetics,
Terahertz Sources: Photoconductive Antennas,
Microwave, mm-Wave and THz Devices and Circuits,
Antenna Theory and Design: UWB Antennas, Array Antennas, and Miniaturized Antennas,
Plasmonic Structures, Electromagnetic and Optic Artificial Materials (Metamaterials),
Theoretical and Computational Electromagnetic,

RESEARCH PUBLICATIONS

Journal Publications

1. **M. Khorshidi**, S. Zafari, and G. Dadashzadeh, "Increase in terahertz radiation power of plasmonic photoconductive antennas by embedding buried three-stepped rods in electrodes", ***Opt. Express***, 27, (2019): 22327-22338.
2. **M. Khorshidi**, G. Dadashzadeh, S. Zafari, "Periodic metallic stepped-slits for entire transmission of optical wave and efficient transmission of terahertz wave", Published online in ***IETE Journal of Research***: (2019).
3. **M. Khorshidi**, G. Dadashzadeh, "Dielectric structure with periodic strips for increasing radiation power of photoconductive antennas: theoretical analysis", ***Journal of Infrared, Millimeter, and Terahertz Waves***, 38.5 (2017): 609-629.
4. **M. Khorshidi**, G. Dadashzadeh, "Plasmonic photoconductive antennas with rectangular and stepped rods: a theoretical analysis", ***JOSA B***, 33.12 (2016): 2502-2511.

5. **M. Khorshidi**, G. Dadashzadeh, "Hybrid analytical-numerical analysis of plasmonic photoconductive antennas", ***Applied Computational Electromagnetics Society Journal***, 31.5 (2016).
6. **M. Khorshidi**, E. Tahanian, "A new conical band-reject UWB antenna with uniform rejection and stable omnidirectional behavior", ***Progress In Electromagnetics Research C***, 59 (2015): 31-40.
7. **M. Khorshidi**, M. Kamyab, "New exponential TEM horn antenna with binomial impedance taper", ***AEU-International Journal of Electronics and Communications***, 64.11 (2010): 1073-1077.
8. E. Tahanian, **M. Khorshidi**, "A Compact triple band-notched UWB antenna using sinusoidal EBG", ***Recent Advances in Electrical and Electronic Engineering*** *(Formerly Recent Patents on Electrical and Electronic Engineering)*, 7.1 (2014): 75-79.
9. S. Zafari, G. Dadashzadeh, **M. Khorshidi**, "Complete optical transmission through nano-scale periodic metallic structure with three-stepped slits", ***Photonics and Nanostructures-Fundamentals and Applications***, 34 (2019): 24-30.
10. M. Rahzaani, G. Dadashzadeh, **M. Khorshidi**, "New technique for designing wideband one layer frequency selective surface in X-band with stable angular response", ***Microwave and Optical Technology Letters***, 60.9 (2018): 2133-2139.
11. E. Tahanian, G. Dadashzadeh, **M. Khorshidi**, "Pierce gain analysis for sheet-beam multiple-circuits traveling-wave amplifiers", ***Journal of Electromagnetic Waves and Applications***, 29.5 (2015): 647-658.

Conference Publications

1. M. Rahzani, G. Dadashzadeh, **M. Khorshidi**, "Cloaking of the cylindrical dielectric structure with double slot square loop cells", *IEEE International Symposium on Wireless Communication Systems (ISWCS)*, 2016, Poznan, Poland, 20-23 Sept.
2. M. Ghazizadeh, G. Dadashzadeh, **M. Khorshidi**, "A novel wideband electromagnetic band gap structure for circular polarization conversion", *IEEE 15th International Symposium on Antenna Technology and Applied Electromagnetics (ANTEM)*, 2012, Toulouse, France, 25-28 June.

RESEARCH REPORTS

1. **M. Khorshidi**, (2018), "Satellite Monitoring Stations", University of Birjand, Birjand, Iran.
2. **M. Khorshidi**, (2016), "Terahertz sources: plasmonic photoconductive antenna", University of Birjand, Birjand, Iran.
3. **M. Khorshidi,** (2014), "International Telecommunication Union (ITU) Recommendations", Communication Regulatory Authority, Tehran, Iran.
4. **M. Khorshidi,** (2012), "Terahertz Technology", Shahed University, Tehran, Iran.
5. **M. Khorshidi,** (2007), "Active Antennas", K. N. Toosi University of Technology, Tehran, Iran.

RESEARCH EXPERIENCE

Assistant Professor, University of Birjand 2017 - Present
Advisor of M. Sc. Project on methods of radiation increase in plasmonic photoconductive antennas. 2017-2019
Advisor of several B. Sc. Projects in antennas, microwave and amplifiers devices 2017-2019
Graduate Research Assistant, Shahed University 2014 - 2017
Graduate Research Assistant, K. N. Toosi University of Technology 2006 -2009

TEACHING EXPERIENCE

Instructor of Electromagnetic fields, University of Birjand 2017 - Present
Instructor of Fields and Waves, University of Birjand 2017 - Present
Instructor of Introduction to Antennas and Wireless Propagation, University of Birjand 2017 - Present
Instructor of Microwave, University of Birjand 2017 - Present
Instructor of Calculus I, Shahed University 2013
Teaching Assistant of Fields and Waves, Shahed University 2011-2012
Instructor of Calculus II, Islamic Azad University-Tehran, East Branch 2012
Instructor of Communication Circuits Lab., Islamic Azad University-Tehran, East Branch 2012
Instructor of Communication Circuits: Analysis and Design, Islamic Azad University-Tehran, East Branch 2011
Instructor of Electronic Circuits Analysis Lab., Islamic Azad University-Tehran, East Branch 2011

CONSULTING EXPERIENCE

Design of a Comprehensive Plan for Monitoring and Surveillance Radio-Communication Services, Institute of Advanced Technologies in Information and Communication (IATIC), Shahed University, Tehran, Iran. 2014-2015
Evaluation of Radiation of Very Small Aperture Terminal (VSAT) Antennas in Comparison with ICNIRP Exposure Limits, Iran Telecommunication Research Center (ITRC), Tehran, Iran. 2014
Conceptual Design of a Satellite Monitoring Station, Ertebatat Baregheh Pardis Engineering Co., Tehran, Iran. 2012-2014

PROFESSIONAL SERVICE

Professional Affiliations

Applied Computational Electromagnetic Society (ACES), Member

Invited Reviewer

Journal of Communication Engineering, January, 2019.

Congress on Electrical, Computer and Information Technology (CECIT 2012), Mashhad, Iran, November, 2012.

14th Iran's Electrical Engineering Conference, Kermanshah, Iran, September, 2011.

SKILLS

Engineering Modeling Software

High Frequency Structure Simulator (HFSS), Computer Simulation Technology (CST), COMSOL Multiphysics, Advanced Design Systems (ADS), Microwave Office (AWR), FEKO, Radio Network Planning Software (ICS telecom).

Programming Languages

Python, MATLAB, Mathematica, LabView, C++, Pascal, and QBasic

REFERENCES

Gholamreza Dadashzadeh, Professor, Electrical and Electronic Engineering Department, Shahed University, Tehran, Iran, +98 21 51212096, gdadashzadeh@shahed.ac.ir.

Mohammad Sadegh Abrishamian, Professor, Electrical and Electronic Engineering Department, K. N. Toosi University of Technology, Tehran, Iran, +98 21 8406220, mabrish@eetd.kntu.ac.ir.

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