




Abhijith B N


Research Scholar, Computational Electromagnetics


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 Abhijith-B-N

Skills

1. *Statistical Modeling*
2. *Matlab*
3. *Python*
4. *C/C++*
5. *Java*
6. *Computational EM*
7. *FEM*
8. *COMSOL Multiphysics*
9. *CST Microwave Studio*

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Outline

I am currently in the final stage of PhD in Electrical Communication Engineering at Indian Institute of Science, Bangalore.

- Finished Under Graduation in 2008.
 - Worked 2 year for Infosys Technologies Limited as a software engineer.
 - In 2011, cleared Graduate Aptitude Test in Engineering (GATE) with rank 404 among 0.13 million applicants and joined for MTech in Electrical Engineering Department at IIT Kanpur.
 - I had been an Assistant Professor at Christ University during 2013-2017.
 - Joined for PhD in 2017 in IISc, Bangalore
- ! Aiming to submit the thesis in July 2022.

Interests

Research, Programming, User Friendly Designs, Machine Learning, Technology, Electromagnetics and numerical computation of electromagnetic problems, General problem solving, Research and Application, and Computer graphics representation.

Education

- Since 2017 Indian Institute of Science, Bangalore PhD
working on stochastic finite element method using my own implementation of FEM code and polynomial chaos expansion. *Under Prof. K. J. Vinoy, Microwave Laboratory, Electrical Communication Department*
- 2011-2013 Indian Institute of Technology, Kanpur M-Tech
Optimization of Vivaldi antenna. *Under Prof. M. J. Akhtar, Microwave Imaging And Material Testing Laboratory, Department of Electrical Engineering*
- 2004-2008 Cochin University of Science and Technology B-Tech
in Electronics And Communication Engineering with the average of 74.75 percentage

Projects

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1. Stochastic finite element for geometric variation for full-wave 3D simulation for electromagnetics.
2. Effects of Statistical Material variation (with and without spatial variation) in electromagnetic models.
3. Vector Element implementation of Finite element analysis of electromagnetics.
4. Rubik's Cube Solver Robot
5. Design optimization of Vivaldi antenna for microwave imaging

Experience

2014-2017	Christ University, Bangalore Teaching, Mentoring, syllabus preparation and general administrative duties.	Assistant Professor
2013-2014	Rajiv Gandhi University of Knowledge Tech., Hyderabad Involved in teaching guiding students on projects and creating study materials.	Lecturer
2008-2010	Infosys Technologies Limited, Mysore Java programming, Banking software and automation using IBM rational functional tester.	Software Engineer

Recent Publications

Journal

1. A. B. Narendranath and K. J. Vinoy, "A Novel Method for Intrusive Stochastic Estimation of Geometric Tolerance Effects in Finite Element Electromagnetic Analysis," IEEE Transactions on Microwave Theory and Techniques, Oct. 2021
2. A. B. Narendranath and K. J. Vinoy, "Spectral Stochastic FEM for Uncertainty Quantification Due to Multiple Dielectric Variabilities," IEEE Antennas and Wireless Propagation Letters, Oct. 2019
3. Z Akhter, Abhijith B N, MJ Akhtar, "Hemisphere lens-loaded Vivaldi antenna for time domain microwave imaging of concealed objects," Journal of Electromagnetic Waves and applications , 2016

Conference

1. A. B. Narendranath and K. J. Vinoy, *Spectral Stochastic Edge Element Method for Complex EM Problems* presented at IEEE Indian Conference on Antennas and Propagation, Hyderabad, Dec 16-19, 2018
2. A. B. Narendranath and K. J. Vinoy, *Stochastic Finite Element Method for Electromagnetic Material Property Variations Over Multiple Subdomains* presented at USRI Asia Pacific Radio Science Conference, New Delhi, March 9-19, 2019
3. A. B. Narendranath and K. J. Vinoy, *Uncertainty Analysis of a Microstripline Based Dielectric Resonator Filter Using Finite Element Method with Polynomial Chaos* presented at 41st PIERS , Rome, Italy, Jun 17-20 2019.
4. A. B. Narendranath and K. J. Vinoy, *Uncertainty Quantification Due to Geometric Variations in Dielectric Resonator Circuits* presented at IEEE International Microwave and RF Conferenc , Mumbai, Dec 12-14, 2019
5. Abhijith B N and M. J. Akhtar, *Optimization of Vivaldi antenna for microwave imaging applications* presented at 2014 IEEE Antennas and Propagation Society International Symposium (APSURSI), Memphis, TN, USA, July 06-11 2014

For full list of publications check my Google Scholar Profile

<https://scholar.google.com/citations?user=d7GhBH8AAAAJ>

