

**Dr.P.Rajeswari M.E., Ph.D.,**

Associate Professor/ ECE

Velammal College of Engineering and Technology, Madurai

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**Educational Qualification:**

2017	<b>Ph.D : Electromagnetic Interference and Compatibility</b> Anna University, Chennai
2005	<b>M.E : Communication Systems</b> Mepco Schlenk Engineering College, Sivakasi
1998	<b>B.E : Electronics and Communication Engineering</b> KLN College Engineering, Madurai

**Experience in Years: 19 Years 8 Months**

**Employment History:**

01/04/2020 – Till date	<b>Associate Professor</b> Velammal College of Engineering and Technology, Madurai
02/05/2009 – 31/03/2020	<b>Assistant Professor</b> Velammal College of Engineering and Technology, Madurai
17/06/2005 – 30/04/2009	<b>Assistant Professor</b> Kamarajar College of Engineering and Technology, Virudhunagar
26/08/1999 – 15/07/2003	<b>Lecturer</b> Raja College of Engineering and Technology, Madurai

**Interested Research Areas:** Electromagnetic Interference and Compatibility, RF and  
Microwaves, Antennas

**Funded Research Projects:**

<b>Project</b>	<b>Sponsoring Organization</b>	<b>Period</b>	<b>Grant</b>	<b>Principal Investigator / Co - Investigator (Please mention)</b>
Artificial Intelligence Enabled Assist for Visually Impaired Movements	MSME	2022-2024	Rs.7.65 Lakhs	Principal Investigator
Investigation of Electromagnetic Phenomenon behind the Temple Kalasam in Indian Historic Temples”	DST	2022-2024	Rs.17.80 Lakhs	Co - Investigator
IoT Enabled Smart Cane for Enhancing Visually Impaired Mobility	AICTE	2022-2024	Rs.10.25 Lakhs	Principal Investigator
Modernization of Optical and Microwave Laboratory	AICTE	2018-2021	Rs.7.71 Lakhs	Principal Investigator
Reduction Of EMI Emission In High Frequency Circuits Of PCB Configurable By Optimization Techniques	DRDO	2011 to 2014	Rs.21.21 Lakhs	Co - Investigator

**Patent rights received:** Australian patent rights received for the invention titled as “Kitchen items cleaning and disinfecting device using water and UV-light” September 2020.

**Publications Details:****1. International Journal Publication Details:**

1. Rajeswari P, Suresh Kumar N, Gobinath A (2022) “A Novel Coupled Line Coupler With Defective Ground Structure (DGS)”, International Journal of Scientific Research in Engineering and Management, Vol.6, No.6.
2. Rajeswari P et.al.,(2022), “Design and Implementation of Phase Shifter for Wireless Communications”, International Journal for Research in Applied Science and Engineering Technology, Vol.10. No.VI.
3. Rajeswari P, Suresh Kumar N, Gobinath A (2020) “A Novel Trident shaped Ultra wide Band Textile Antenna” International Journal of New Innovations in Engineering and Technology, Vol.13, No.3.

4. Rajeswari P et.al (2020) "A Compact 2 element planar Canonical MIMO antenna design for IoT Applications" Journal of Xidian University, Vol.14, No.11.
5. Rajeswari P and Gobinath A (2020), "Performance Analysis of Microstriplines Interconnect Structure with Novel Guard Trace as Parallel Links for High Speed Dram Interfaces", International Journal of Wireless Personal Communications, Springer, Vol. 112, No. 1. (Annexure I)
6. Rajeswari P.et.al (2017)"Design of Koch Fractal Antenna for Wireless Applications", International Journal of Engineering Research & Technology
7. Rajeswari P.et.al (2017)"Design of Ultra wideband Textile Antenna for Wearable Applications", International Journal of Engineering Research & Technology
8. Rajeswari P and Raju S (2016), "Analytical and experimental study on suppression of electromagnetic interference on high speed printed circuit board for wireless communication systems", International Journal of Wireless Personal Communications, Springer, Vol. 89, No. 4. (Annexure I)
9. Rajeswari P and Raju S (2015), "Comparative study of crosstalk reduction techniques in RF printed circuit board using FDTD method", International Journal of Antennas and Propagation, United States, Vol.2015. (Annexure I)
10. Rajeswari P.et.al (2016)"A Novel Trident Incurvature Shape DGS to Suppress Radiated Emission in High Speed Printed Circuit Board", Circuits and Systems, Vol.7, No.10. (Annexure I)
11. Rajeswari P and Raju S (2012), "Comparative study of crosstalk reduction techniques for parallel microstriplines" Lecture Notes on Computer Science, Springer, Vol.108.
12. Rajeswari P.et.al (2016)"Far end crosstalk reduction between parallel microstriplines using U shaped guard trace", ARPN Journal of Engineering and Applied Sciences, Vol.11. No.5
13. Rajeswari P.et.al (2016)"Optimization of Electrical Parameters for Crosstalk Reduction between Parallel High Speed Interconnects Using Particle Swarm Optimization", International Journal of Electrical, Electronics and Computers.
14. Rajeswari P.et.al (2015)"Signal Integrity Analysis of High Speed Interconnects In SATA Connector", International Journal of Applied Engineering Research, Vol.10.No.7.
15. Rajeswari P.et.al (2015)"Crosstalk Reduction on Coupled Microstrip To Three Line Coupled Microstrip Transition Using Mitering Configuration", International Journal of Applied Engineering Research, Vol.10.No.3.
16. Rajeswari P.et.al (2014)"Investigation of Electromagnetic Coupling Between Microstrip Lines with Defective Ground Structures", International Journal of Applied Engineering Research, Vol.9.No.21.
17. Rajeswari P.et.al (2014)"Analysis of EMI Shielding Effectiveness of Building Materials", Electrical Engineering: An International Journal.
18. Rajeswari P.et.al (2013)"Study of Radiated Emission in Various Microstripline Structures on Printed Circuit Boards", International Journal of Science and Research, Vol.2. No.4.
19. Rajeswari P.et.al (2010)"Analysis of High speed VLSI Interconnects for Signal integrity in Nanometer Range", CiiT international journal of Digital Signal Processing.

20. Rajeswari P.et.al (2009)“Parameter Extraction of planar Transmission Line Structure by ADI-FDTD Method”, CiiT international journal of Digital Signal Processing.
21. Rajeswari P.et.al (2008)“Analysis of Planar Transmission line structure using Finite Element Method”Engineering Today.
22. Rajeswari P.et.al (2007)“Evolution of various techniques for PAPR reduction in OFDM”, Journal of BES Review, Vol.13.No.3&4.
23. Rajeswari P.et.al (2005)“Signal Integrity Analysis for High Speed on chip interconnects using Genetic Algorithm”, Journal of Electromagnetic Compatibility, Vol.1

## **2. International Conference Presentation Details:**

1. P.Rajeswari., et.al.“Investigation on the Shielding Effectiveness of conductive textile Material”, International Conference on Research Advancements & Challenges In Engineering Sciences, Velammal Institute of Technology, Chennai, 2020
2. P.Rajeswari., et.al.“Investigation on the Defective Ground Structure for Radiated Emission Reduction in High Speed PCB”, International Conference on Research Advancements & Challenges In Engineering Sciences, Velammal Institute of Technology, Chennai, 2020
3. P.Rajeswari., et.al.“Design of Multiband Conformal Loop Antenna for Telemetry Applications”, International Conference on Current Trends in Engineering and Technology-ICCTET 18,Akshaya College of Engineering and Technology, Coimbatore, 2018.
4. P.Rajeswari., et.al.“ Voice Recognised Wireless Moving Recliner”, International Conference on Current Trends in Engineering and Technology-ICCTET 18,Akshaya College of Engineering and Technology, Coimbatore, 2018.
5. P.Rajeswari., et.al.“Design of Multiband Conformal Loop Antenna for Telemetry Applications”, International Conference on Current Trends in Engineering and Technology-ICCTET 18,Akshaya College of Engineering and Technology, Coimbatore, 2018.
6. P.Rajeswari., et.al.“Design of Koch Fractal Antenna For Wireless Applications”, International Conference on Engineering and Advancementing Technology-ICEAT 18 Sri Krishna College of Technology, Coimbatore, 2018
7. P.Rajeswari., et.al.“ Effective Electromagnetic Interference Shielding Using Hematite Composite Materials”, International Conference on Engineering and Advancementing Technology-ICEAT 18 Sri Krishna College of Technology, Coimbatore, 2018
8. P.Rajeswari., et.al.“A Novel Crosstalk Reduction Technique for Trace Suspension Assembly Interconnects in Hard Disk Drive”, International Conference on “Electromagnetic Interference and Compatibility” (INCEMIC 2016), Society of EMC Engineers (India), 2016
9. P.Rajeswari., et.al.“ Reduction of far end crosstalk on high speed printed circuit board using sinusoidal microstrip lines”, International Conference on Emerging Trends in Engineering and Technology, Hyderabad, 2016
10. P.Rajeswari., et.al.“ Analysis of Electromagnetic coupling between two non-parallel Micro strip lines on a High Speed Printed Circuit Board”, International

- conference on Innovations in Electronics, Communications and Computing (ICIECC'14), 2014.
11. P.Rajeswari., et.al.“ Analysis of EMI shielding effectiveness of Building materials”, International conference on Innovations in Electronics, Communications and Computing (ICIECC'14), 2014.
  12. P.Rajeswari., et.al.“ Analysis of Radiated Emission in High Speed Printed Circuit Board Using Modified Ground Plane Patterns”, SARC-IRAJ International Conference, 2013
  13. P.Rajeswari., et.al.“Comparative study of crosstalk reduction techniques for parallel microstriplines”, Third International Conference on Advances in Communication, Network, and Computing ACEEE.
  14. P.Rajeswari., et.al.“ Crosstalk Reduction in PCB Traces using Various Trace Configurations”, International Conference on Electromagnetic Interference and Compatibility 2012
  15. P.Rajeswari., et.al.“ Investigation of Radiated Emission in Various Microstripline Structures on Printed Circuit Boards”, International Conference on Electromagnetic Interference and Compatibility 2012
  16. P.Rajeswari., et.al.“ Study of Various Defective Ground Plane Structures for Improving Electrostatic Discharge Immunity in High Speed Printed Circuit Board”, International Conference on Electromagnetic Interference and Compatibility 2012
  17. P.Rajeswari., et.al.“ Crosstalk Analysis for Microstrip line Chamfer on a High Speed Printed Circuit Board”, International Conference on Electromagnetic Interference and Compatibility 2012
  18. P.Rajeswari., et.al.“ Frame Rate Up Conversion Using Trilateral Filtering”, National conference on Signal Processing & Communication Technologies 2011, Kamaraj College of Engineering & Technology, Virudhunagar, 2011
  19. P.Rajeswari., et.al.“Parameter extraction of planar transmission line structures using various numerical approaches”, International Conference on Electromagnetic Interference and Compatibility 2010
  20. P.Rajeswari., et.al.“ Signal Integrity Analysis and Optimization of On chip High Speed Interconnects Using Particle Swarm Optimization”, International Conference on Electromagnetic Interference and Compatibility 2010
  21. P.Rajeswari., et.al.“Analysis of Coplanar waveguide structures using Alternate Direction Implicit Method”, International Conference on Electromagnetic Interference and Compatibility 2010
  22. P.Rajeswari., et.al.“ Modeling and Optimization of On chip High Speed Interconnects”, International Conference on Electromagnetic Interference and Compatibility 2006
  23. P.Rajeswari., et.al.“Signal Integrity Analysis for High Speed on-chip Interconnects Using Genetic Algorithm”, International Conference on “Resource Utilization and Intelligence , 2005,Kongu Engineering College, Perundurai, 2005

#### **4. National Conference Presentation Details:**

1. P.Rajeswari., et.al.“Design of Ultra wideband Textile Antenna for Wearable Applications”, National Conference on innovation in Electronics, Communication and Computing (NCIECC'17), 2017
2. P.Rajeswari., et.al.“Bandwidth Enhancement For Dielectric Resonator Antenna Using Modified Microstrip Patch Feeding Technique”, National Conference on innovation in Electronics, Communication and Computing (NCIECC'17), 2017
3. P.Rajeswari., et.al.“ Design of Koch Fractal Antenna for Wireless Applications”, National Conference on innovation in Electronics, Communication and Computing (NCIECC'17), 2017
4. P.Rajeswari., et.al.“ Frame Rate Up Conversion Using Trilateral Filtering”, National conference on Signal Processing & Communication Technologies 2011, Kamaraj College of Engineering & Technology, Virudhunagar, 2011
5. P.Rajeswari., et.al.“ Reduction in Peak –To-Average Power Ratio of OFDM signals by Complementary Block Coding”, National conference on Signal Processing & Communication Technologies, Kamaraj College of Engineering & Technology, Virudhunagar
6. P.Rajeswari., et.al.“ The Companding Technique For Peak Power Reduction in OFDM Systems”, National Conference on ICET '09, Velammal College of Engineering & Technology, Madurai, 2009
7. P.Rajeswari., et.al.“ Simulation of Finite Rectangular Linear Phased Arrays National conference on Extreme Engineering & Technological Advancements, Jayam College of Engineering & Technology, Dharmapuri
8. P.Rajeswari., et.al.“ Analysis of Planar Transmission Line Structures using Finite Difference Method” National Conference on Emerging Trends in Technology, Kalasalingam University, Krishnankoil
9. P.Rajeswari., et.al.“Modeling & Simulation of Microstrip Patch Antenna using FDTD Method” National Conference on Emerging Trends in Technology, Kalasalingam University, Krishnankoil

## **5. Book Publication Details:**

1. P.Rajeswari, N.Suresh Kumar, A.Gobinath (2020) “Capsule Antenna for Medical Application” ISBN: 978-620-0-31810-7, Lab Lambert Academic Publishing
2. P.Rajeswari, A.Gobinath (2019) “Advances in Engineering Technology – Mitigation Techniques to Reduce Crosstalk in SATA Interconnects” ISBN: 978-93-5335-513-5, Akinik Publications
3. P.Rajeswari, N.Suresh Kumar, A.Gobinath (2017) “Signal Integrity In Mother Board – Interconnect Theory and Design” ISBN: 978-3330330931, Lab Lambert Academic Publishing