

Dr. MRIDULA S
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Education:

Ph.D thesis

INVESTIGATIONS ON A MICROSTRIP EXCITED RECTANGULAR DIELECTRIC RESONATOR ANTENNA

Department of Electronics, Cochin University of Science and Technology (2006)

M.Tech Electronics

Specialization: Microwave and Radar Electronics, Cochin University of Science and Technology (1999)

CGPA 3.36/4 - First class with Distinction and First Rank

B. Tech Electronics and Communication

College of Engineering, Trivandrum, Kerala University (1988)

Score: 78% - First class with Distinction

Academic Honours:

Recipient of the **K.G. Nair Endowment Gold Medal** for securing First Rank in the M.Tech Electronics Examination conducted by the Cochin University of Science and Technology in July 1999.

Won the Session's Best Paper Award for the paper titled 'Time Domain Modeling of a Band-Notched Antenna for UWB Applications' at the International Conference on Design and Modeling in Science, Education and Technology (DeMset 2011), organized by the International Institute of Informatics and Systemics at Orlando, Florida, USA, during November 29 – December 2, 2011.

Work experience:

30 years teaching experience

Research Experience:

Presently guiding 5 PhD students in the areas of Reconfigurable Microwave Circuits, Metamaterials, Microwave Sensors, Material characterization using Microwaves and Flexible Antennas.

PhDs produced.

1. Anju Pradeep, Investigations on Metamaterial Based Spiral Inductors for Compact Microwave Devices, 15th December 2015
2. Bindu CJ, Design and Development of Planar Filters for Ultra Wide Band Applications, 6th August 2016
3. Sumi.M, Design, Development and Analysis of Chipless RFID tags using planar multiresonators, 28th July 2017
4. Mini P R, Development of a computationally efficient antenna beamforming algorithm and its implementation using FPGA, 1st June 2018
5. Rajesh Mohan R, "Microwave Imaging for Soil Characterization" 30th August.2019

Areas of Interest:

Planar Antennas and Filters, Microwave sensors and Imaging, Material characterization using Microwaves, Computational Electromagnetics

Publications (135):

International Journal: **44** International Conference: **56** National Conference: **35**

Books Authored:

Book Chapter on “Dielectric Resonator Antennas” in the book “Microwave Dielectric Materials and Applications, 2nd Volume”, Edited by: Mailadil T. Sebastian, Heli Jantunen, Rick Ubic, Wiley International, ISBN: 978-1-119-20852-5, 2017

Research Projects Undertaken:

S No:	Designation	Project title	Sponsoring agency	Sanctioned amount	Duration
1	Principal Investigator	Design and development of new generation RFID tags using chipless technology	AICTE RPS	Rs.17.4 Lakhs	2017-2020
2	Co-Principal Investigator	Implantable Sensor Antenna for medical applications	DAE_BRNS	20,86,500	2014-2017
3	Principal Investigator	Design and Development of Compact Planar Filters for RF/Microwave Applications	KSCSTE	15,33,334	2013-16
4	Principal Investigator	Miniaturised Band Pass Filters for Wireless Applications,	TEQIP, SOE	Rs.50,000	2013-14
5	Supervisor	Microwave Sensing of Soil Properties	CERD	Rs.19,000	2013-14
6	Principal Investigator	Design and development of compact antennas for UWB communication applications	AICTE RPS(C)	Rs.14.95 Lakhs	2008-2010
7	Co-investigator	Design of compact Microstrip Antenna configurations using Genetic Algorithms	KSCSTE	Rs. 9.99 Lakhs	2007-2009
8	Principal Investigator	Design, Development and analysis of a compact Microstrip antenna with reduced radiation hazards towards the human head	DST-SERC FAST track Project	Rs. 4.08 Lakhs	2004-2007
9	Project associate	Development of a Compact Microstrip Antenna with reduced radiation Hazards suitable for use in Mobile Communication handsets	UGC Major Research Project	Rs 10 Lakhs	2003-2005

Participated and presented papers at several National / International Conferences including

- The ‘20th Annual Review of Progress in Applied Computational Electromagnetics (ACES - 04)’, held at Syracuse University, Syracuse, New York during April 19-23 2004
- The International Conference on Design and Modelling in Science, Education and Technology (DeMset 2011) at Florida, USA, 30 Nov – 2 Dec 2011.
- 4th International Symposium on Electronic System Design, (ISED 2013), held at Nanyang Technological University, Singapore, during December 12-13, 2013
- 2016 IEEE International Symposium on Antennas and Propagation and North American Radio Science Meeting in Fajardo, Puerto Rico, June 26 - July 1, 2016
- 2018 IEEE International Symposium on Antennas and Propagation and USNC/URSI Radio Science Meeting Boston, Massachusetts, July 8-13 2018

Reviewer of several International journals, National and International conferences

Resource Person at several faculty development programs and Conferences

Expert Committee Membership:

1. Subject Expert at selection / interview boards / National Evaluation Committees
2. Member / Examiner / Evaluator at Doctoral Committees of various Universities
3. Chairman / Passing Board Member / Chief Examiner at UG / PG Examination of Different Universities
4. Member, Inspection Team of CUSAT , KTU

Coordinator

1. Faculty development program on Modelling and Optimization Techniques in Engineering, 18.10.2010 – 30.10.2010.
2. National Seminar on Frontier Technologies in RF Engineering, 4.3.2011-5.3. 2011, organized by Division of Electronics Engineering, SOE, CUSAT,
3. Two day IEEE – APS Workshop on Electromagnetics Education, organized by IEEE – APS Chapter, Kerala Section, Dec 18-19,2014, Department of Electronics, CUSAT
4. Co-ordinator, IEEE AP-S Workshop on “Introduction to LateX”, 16-17 April 2015.
5. Coordinator, Pedagogy Workshop on Teaching Excellence, 5th July 2019 under Teqip III, SOE, CUSAT.

Other positions held

1. Member, Senate, CUSAT four years with effect from 14.2.2019
2. Chairperson, Board of studies in Electrical and Electronics Engineering and Electronics and Communication Engineering, Faculty of Engineering, CUSAT [4 years wef 23.10.2019]
3. Member, Academic Council, CUSAT[4 years wef 23.10.2019]

Membership in Professional bodies:

Member – IEEE, IEEE –APS Society, Vice-Chair, IEEE – APS Kerala Chapter, R10

Member – International Institute of Informatics and Systemics (IIS).USA

Member – Applied Computational Electromagnetic Society, USA

Life member- Indian Society for Technical Education (ISTE)

Life member- Institute of Electronics and Telecommunication Engineers (IETE)

Life member – ISSE, Indian Society of Systems for Science and Engineering LM00665