



Freda Carvalho

Basic Communication Laboratory, Electronics & Telecommunication Department

+91(22)25040508 Extn 198(Office)

Email: freda[at]dbit[dot]in

Background

B.Tech in Electronics & Telecommunication (EXTC) Engineering, Usha Mittal Institute of Technology, Mumbai

M.E. in EXTC , Vivekanada Education Society's Institute of Technology, Mumbai

Publications

- 1) Freda Carvalho, Ashwini Kotrashetti, "The Effects on Student Competencies using Educational Technology based Tools for an Undergraduate Course of Engineering", 8th International Conference on Technology for Education, Dec 2016
- 2) Jose J, George S, Bosco L, Bhandari J, Fernandes F, Kotrashetti A, "A review of RF Energy Harvesting Systems in India", International Conference on Technologies for Sustainable Development, Feb 2015. DOI:10.1109/ICTSD.2015.7095838
- 3) Daison D,Pratik L, Nigel M, Freda F, Ashwini K, "Design and Development of Printed Sierpinski Carpet, Sierpinski Gasket and Koch Snowflake Fractal Antennas for GSM and WLAN Applications" International Conference on Technologies for Sustainable Development, ICTSD 2015, Mumbai
- 4) K.P.Ray, Shoba Krishnan, Freda Fernandes, "Design and Integration of Slotted EBG and Cross EBG structure with Microstrip Patch Antennas" IET conference NGN Networks, Sept 2010
- 5) Freda Fernandes, D. Sundararajan, "Design, Development and Fabrication of a traveling wave antenna on a Conical Surface" IEEE Antenna & Wave Propagation Magazine, Aug 2010, Vol.52. Issue 4, pp106-109.
- 6) K.P.Ray, Shoba Krishnan, Freda Fernandes, "Effect of DGS loading on Patch Antennas" ATMS conference , Feb 2011, pp172-174
- 7) Freda Fernandes, Ashwini Kotrashetti, "Design & Development of Active Antenna for Receiver Systems" 1ST International Conference and exhibition of women engineer, pp 135-137

Industry Collaboration / Sponsored Projects

- 1) Design and Development of 300MHz to 1000MHz Log periodic Antenna for EMI/EMC applications (In progress)
- 2) Development of Antenna for IOT systems, 2016
- 3) RF Energy Scavenging System, 2015
- 4) Development of a robotic vehicle for unmanned areas, 2013

R& D areas

- 1) Collaboration with IITB chemical Engineering Department for sustainable development for water sensing & treatment

Workshops Conducted

- 1) Speaker for "Two Day RF filter Design Workshop", D.B.I.T., Mumbai, 13-14 Sept,2014
- 2) Speaker for "Use of Latex", XIE, MAhim 2013
- 3) Speaker for "Antenna Design Workshop", D.B.I.T., Mumbai, 2-3 Feb, 2011
- 4) Conducted Workshop for B.E. students of D.B.I.T. on Latex for report writing, Feb 2011

Projects Guided

- 1) Design and Development of Low Noise Amplifier in GSM Band
- 2) WLAN Rectenna for RF Energy Harvesting
- 3) Design and Development of Microwave Couplers
- 4) Beam Steering Antenna for GSM
- 5) Passive Repeater Antenna for GSM
- 6) Collision Avoidance System
- 7) Active Antenna in GSM Band
- 8) Vivaldi Antenna in ISM Band
- 9) Colpitt's Oscillator at 900MHz using BJT
- 10) Printed Dipole Antenna at 2.4GHz
- 11) 5.8GHz Re-Entrant Cavity Slotted Array Antenna
- 12) 2.4GHz Monopole Antenna with Capacitive Loading
- 13) Smart Antenna for X Band
- 14) H Shaped slot Antenna for GSM Base Station

Courses Taught

- 1) Electrical Networks
- 2) Microwave Devices & Circuits
- 3) Antenna & Wave Propagation
- 4) Electromagnetics & Wave Theory
- 5) Fundamentals of Microwave Engineering
- 6) Advanced Microwave Engineering
- 7) Microwave Amplifier & Oscillator Design
- 8) Microwave Integrated Circuits
- 9) Software Simulation Laboratory
- 10) Circuits & Transmission lines