

**Supervision of Undergraduate/ Graduate Project Dissertations
by CEM Lab. Scientists**

Post-Graduate Dissertations

1. *Generic Studies for Aircraft in-cabin EM Environment*, Allu Peddinti Divya, Birla Institute of Technology and Science, Pilani, Raj., M.Sc. (Hons.) Physics, BITS PS-II Project Report, 34 p., December 2008.
2. *Modelling of In-cabin environment: Studies for a large passenger Aircraft*, Allu Peddinti Divya, Birla Institute of Technology and Science, Pilani, Raj., M.Sc. (Hons.) Physics, BITS PS-II Project Report, 40 p., Jan-June 2009. (*Second Project*)
3. *Joint Structures-CEM Optimization of Functional Structures for Next Generation Aircraft*, Kalpana N., Anna University, M.E. Communications Systems, Dissertation, 48 p., June 2008.
4. *Suppression of Wideband Jammers*, Nisha Purswani, M.Sc. (Hons.) Physics, BITS PS-II Project Report, 110 p., December 2007.
5. *Active RCS Reduction in Low Observables*, Shweta Sharma, Birla Institute of Technology and Science, Pilani, Raj., M.Sc. (Hons.) Physics, BITS PS-II Project Report, 125 p., December 2006.
6. *Integrated Stealth Design for Low Observables*, Mayuri Rastogi, Birla Institute of Technology and Science, Pilani, Raj., M.Sc. (Hons.) Physics, BITS PS-II Project Report, 98 p., December 2006.
7. *Electromagnetic Design and Applications of Metamaterials*, Nikhil Jain, Birla Institute of Technology and Science, Pilani, Raj., M.Sc. (Hons.) Physics, BITS PS-II Project Report, 95 p., December 2005.
8. *Studies in Quantum Computing*, Tarun Sanghi, Birla Institute of Technology and Science, Pilani, Raj., M.Sc. (Hons.) Physics, BITS PS-II Project Report, 64 p., June 2005.
9. *Radome Design Studies for Optimisation of EM Performance Parameters for Missile Applications*, A Annal Prabhavathy, Vellore Institute of Technology, Vellore, M.Tech. (Sensor System Technology), Dissertation, 108 p., April 2004.
10. *Smart Antennas for Wireless Communication*, Reena Saxena, Barkatullah University, Bhopal, M.Sc. (Electronics), Dissertation: *First Project*, 82 p., Mar. 2000.
11. *EM Design of Inflatable Radome*, Reena Saxena, Barkatullah University, Bhopal, M.Sc. (Electronics) Dissertation: *Second Project*, 57 p., Mar. 2000.
12. *VC++ Implementation of Quadric Surface Modelling for Aerospace Structures*, Ganesh Rao, Malnad College of Engineering, M.C.A. Dissertation, 64 p., Aug. 1998.
13. *Surface Ray-tracing on Quadric Cylinders for Electromagnetic Applications of Aerospace Structures*, Dinesh S., Cochin University of Science and Technology, Kochi, M.Sc. (Electronics) Dissertation, 144 p., Mar. 1998.

14. *Surface Ray-tracing on Quadric Surfaces of Revolution for Electromagnetic Applications of Aerospace Structures*, Raneesh V.K., Cochin University of Science and Technology, Kochi, M.Sc. (Electronics) Dissertation, 104 p., Mar. 1998.
15. *VC++ Implementation for Perspective Simulation of Cubics generated Aerospace Imageries*, Veera Madhu K., Birla Institute of Technology and Science, Pilani, Raj., M.E. Dissertation, BITS PS-II Project Report, BITS PS-II Project Report, 52 p., Dec. 1997.
16. *Cubic Surface for Visualisation and Ray Tracing of Airport Terrains*, M. Siva Sankara Rao, Cochin University of Science and Technology, Kochi, M.Tech. Dissertation, 85 p., June 1997.
17. *C++ Implementation of Codes for EM Design of Radome*, Girish Kumar C., Cochin University of Science and Technology, Kochi, M.Tech. Dissertation, 62 p., June 1997.
18. *Radar Cross Section of Nondevelopable Missile Shapes & Implementation on Parallel Architecture*, Mini P.K., Cochin University of Science and Technology, Kochi, M.Tech. Dissertation, 45 p., June 1997.
19. *EM Characterisation Studies of A-Sandwich Radome*, Jose M.C., Cochin University of Science and Technology, Kochi, M.Tech. Dissertation, 40 p., June 1997.
20. *A Study of Microwave Remote Sensing from Space*, S. Manjunath, UVCE, Bangalore, M.E. Dissertation, 66 p., Oct.1996.
21. *Cubic Surface Modeling and Visualization and Ray Tracing over Aerospace Bodies*, G. Sheela, UVCE, Bangalore, M.E. Dissertation, 75 p., Aug. 1996.
22. *High Frequency Radar Cross Section (RCS) Studies of Spherical Shapes*, M.V. Sanjeev Kumar, Birla Institute of Technology and Science, Pilani, Raj., M.E. Dissertation, BITS PS-II Project Report, 28 p., June 1996.
23. *Application of UTD for RCS of Ellipsoid of Revolution*, R. Chandra Shekhar, Cochin University of Science and Technology, Kochi, M.Tech. Dissertation, 37 p., June 1996.
24. *Application of UTD for RCS Studies of General Paraboloid of Revolution*, P. Pradeep Kumar, Cochin University of Science and Technology, Kochi, M.Tech. Dissertation, 40 p., June 1996.

Graduate Project Reports

25. *Design Aspects of Airborne Radomes*, M. Praveen Kumar, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 80 p., June 1994.
26. *UTD Mutual Coupling Characteristics for Antennas on Ellipsoids of Revolution*, Rahul Choudhury, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 41 p., Dec. 1994.
27. *Application of the Uniform Theory of Diffraction for Radar Cross Section Characterization for a Sphere*, Aravind Reddy A.G., Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 44 p., June 1995.

28. *Application of the Uniform Theory of Diffraction for Radar Cross Section Studies of a Circular Cylinder*, Amit Mannan, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 75 p., June 1995.
29. *Application of the Uniform Theory of Diffraction for Radar Cross Section Studies of General Paraboloid of Revolution*, Meenakshidundaram L., Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 71 p., Dec. 1995.
30. *Application of Surface Modelling and Ray Tracing to General Open Surfaces*, Anup Varma, College of Engineering Trivandrum, Project IMPACT, BE Project Report, 30 p., Mar. 1996.
31. *Application of Surface Modelling and Ray Tracing to General Closed Surfaces*, M. Krishnaraj Varma, College of Engineering Trivandrum, Project IMPACT, BE Project Report, 32 p., Mar. 1996.
32. *EM Design and Characterization Studies for the Nose Cone Radome of Aircraft*, D. Vijaya Kumar, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 83 p., June 1996.
33. *Interaction of EM Waves with Human Cells for Cellular Telecommunication Applications*, G. Praveen Kumar, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 47 p., Dec. 1996.
34. *Terrain Modeling for EM Wave Scattering and Diffraction Studies*, Mohammed Yasin, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 41 p., Dec. 1996.
35. *Radar Cross Section Studies of Simple Missile Shapes*, T. Ramesh Babu, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 40 p., Dec. 1996.
36. *Development of Computer Codes for Radar Cross Section (RCS) Studies of Simple Scattering Shapes*, V. Vikranth, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 30 p., June 1997.
37. *A Study of Materials for Infrared Signature Technology*, Prashanth N.K., Manipal Institute of Technology, BE Project Report, 45 p., Aug. 1997.
38. *Computational Techniques in Infrared Signature Technology*, Pradeep T.G.C., Manipal Institute of Technology, BE Project Report, 43 p., Aug. 1997.
39. *Mathematical Analysis of Ray Tracing over Novel Surfaces and its Implementation using C++*, Haridarshan Singh, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 69 p., Dec. 1997.
40. *C++ Formalism of Surface-Ray Tracing for High-Frequency Aircraft Antenna Analysis*, Venkatapathi Raju S.R.V., Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 34 p., Dec. 1997.

41. *C++ Implementation of Computational Techniques for Infrared Signature Technology*, Radhika B.S., Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 44 p., Dec. 1997.
42. *Surface Modelling and Ray Tracing on Elliptical Surfaces with Application to Aircraft Antenna Analysis: Software Standardisation and Integration*, S. Rajaram, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 28 p., June 1999.
43. *Surface Modelling and Ray Tracing on Parabolic Surfaces with Application to Aircraft Antenna Analysis: Software Standardisation and Integration*, Manigandan A.R., Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 30 p., June 1999.
44. *Electromagnetic Design and Development of Radar Absorbing Structures*, Krishnamoorthi V., Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 21 p., Dec. 1999.
45. *Integration of Radar Absorbing Material Codes using Software Engineering Techniques*, Meera R., Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 24 p., Dec. 1999.
46. *Antenna-Radome Interaction S/w Development for Aerospace Applications*, Chetna V. Mannur, Mridula N.V., Nisha R., and Shobha C.R., SJC Institute of Technology, Chickaballapur, VTU, BE Project Report, 48 p., June 2003.
47. *Automated Measurement using GPIB*, Sravan Chaitanya K., BITS Pilani, Project Report, 40 p., Dec. 2004.
48. *Modelling and RCS Prediction Studies for Helicopter like Hovering Platforms*, N. Gopal Krishna Sharma, Birla Institute of Technology and Science, Pilani, Raj., BITS PS-II Project Report, 44 p., Dec. 2004.
49. *Ray-tracing on Ogival Structures for UTD Applications of Conformal Antennas*, Abhijit Joshi, Mohan Kumar E., and Sudarshan M. Patankar, Saphthagiri College of Engineering, Bangalore, VTU, BE Project Report, 76 p., May 2005.
50. *Design and Analysis of C-Sandwich Radome*, Akshay U. Shanbhag, Shashikiran M.S., and Vijay Krishna G., AMC Engineering, Bangalore, VTU, BE Project Report, 74 p., May 2005.
51. *Metamaterial Design Studies for Aerospace Applications*, Rekha K. and Shruthi Noel Kueri, PES Institute of Technology, Bangalore, VTU, BE Project Report, 44 p., May 2005.
52. *A Performance Study of Generalized Sidelobe Cancellers*, Sarath Nair, B. Tech. Project Report, Indian Institute of Technology Madras, 25 p., July 2006.
53. *Study on the Electromagnetic Characteristics of Frequency Selective Surfaces (FSS) for Airborne Radomes*, Neelam A., BITS PS-II Project Report, 135 p., Dec. 2007.
54. *A Study of Methods for Electromagnetic Evaluation of Large Aircraft In-Cabin Environment*, Soumya Tejas, B.E. (Hons.) E&CE, Kodaikanal Institute of Technology (KIT), Kodaikanal, BE Project Report, 58 p., March 2009.

55. *EM Characterization of Aircraft Interior Materials and Metamaterials for Futuristic Aerospace Applications*, Manisha Gupta, Birla Institute of Technology and Science, Pilani, Raj., B.E. (Hons.) Electronics & Instrumentation, BITS PS-II Project Report, 35 p., January-June 2009.
56. *Development of Software Package for EM Material Characterization Based on Scattering Parameters*, Tamilarasan, S.R., Shebin Xavier, and Vishnu G., Bangalore College of Engineering and Technology, Bangalore, VTU, BE Project Report, 49 p., June 2010.