CURRICULUM VITAE

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Educational Experience:

Degree Awarded	Specialization	Institute/University	Course Duration Details		
			Year of Commencement	Year of Completion	Total Period
Bachelor of Science (B.Sc)	Physics	University of Calcutta	July, 1995	June, 1998	3 years
Bachelor of Technology (B.Tech)	Radio Physics and Electronics	Institute of Radio Physics and Electronics (University of Calcutta)	August, 1998	June, 2001	3 years
Master of Technology (M.Tech)	Radio Physics and Electronics	Institute of Radio Physics and Electronics (University of Calcutta)	August, 2001	July, 2003	2 years
Doctor of Philosophy (Ph.D)	Microstrip Antenna	Institute of Radio Physics and Electronics (University of Calcutta)	August, 2003	March, 2008	5 years
Grand Total of Educational Experience					**13 years**

Professional Experience:

Organization	Designation	Service Period		
		From	To	Total Experience
West Bengal State University, Barasat, India	Reader	Feb. 2009	July 2010	1 year, 5 months
Jadavpur University, Kolkata, India	Reader	July 2010	Feb. 2012	1 year, 7 months
Jadavpur University, Kolkata, India	Associate Professor	Feb. 2012	Feb. 2015	2 years, 2 month
Jadavpur University, Kolkata, India	Professor	Feb. 2015	till date	
Grand Total of Professional Experience				**11 years, 10 months**

Research Experience:

Before Ph.D.: 5 Years

After Ph. D.: 12 Years (Till date)

Award Achieved:

- Awarded "**Young Scientist Award**" (YSA) in the year 2005 by "**International Union of Radio Science**" (U.R.S.I).

Membership of Professional Bodies:

- **IEEE Senior Member (General& Antenna and Propagation Society Member Id: 90346641)**

Current Area of Research:

- Microstrip Antenna
- Dielectric Resonator and its application
- Wearable Antenna
- Electromagnetics

Sponsored Project Completed:

Project Title	Role	Funding Agency	Amount of Grant (INR.)	Duration		Period	Status
				From	To		
Experimental and Theoretical Studies on Some Defected Ground Structures (DGS) for Microstrip Applications	Principal Investigator	Department of Science & Technology (D.S.T), India	20.0 Lacs	Aug. 2008	Aug. 2011	3 years	Completed

Ph.D. Thesis Supervised: Awarded: 3; Ongoing: 6

Name of the Research Scholar	Title of Ph.D. Thesis	Year of Registration	Year of Completion
Anirban Mandal	Experimental and Theoretical Investigations of some Aspects of Rectangular and Triangular Patch Antennas with Superstrate	2011	Awarded
Mihir Dam	Experimental and theoretical investigation of chareacteristics of equilateral triangular patch antenna on composite, suspended, air substrate and multilayered media	2012	Awarded
Mausumi Sen	Experimental & theoretical investigation of rectangular patch in multilayered dielectric media	2013	Awarded
Sourav Banik	The effect of composite, suspended, air substrate and dielectric cover on the characteristics of circular	2013	Ongoing

	microstrip patch antenna: Experimental and theoretical investigations		
Biplab Biswas	Design and development of split ring resonator (SRR) antenna by the meta-material	2016	Ongoing
Smt. Baisakhi Naskar	Design and development of microstrip patch sensors for the determination of permittivity of liquid, paste, solid and febric materials	2018	Ongoing
Sheershendu Bhattacharya	Investigation of cavity-backed triangular patch antennas	2019	Ongoing
Durjoy Roy	Cylindrical DRA	2020	Ongoing
Bidisha Biswas	Rectangular DRA	2020	Ongoing

Master Thesis Supervised: 07

Name of the Student	Title of Master Thesis Guided	Year of Completion
Sourav Banik	Analysis of Circular Microstrip Patch Antenna: Theoretical and Experimental Studies	2011
Chandra Shekhar Prasad	Parametric study to investigate the characteristics of single,stacked, suspended ETDRA	2012
Joydeep Pal	Experimental and theoretical investigations of wearable microstrip patch antennas for WLAN and Bluetooth applications	2013
Soumen Mondal	Theoretical and experimental investigation of wearable microstrip patch antennas with and without superstrate	2014
Abhinav Kr. Jha	Triangular Cavity Model by Matematerial	2015
Amiya Haldar	Investigation of Rectangular DRA	
Abhishake Biswas	Theoretical and experimental investigation of split ring resonator and its application in designing metamaterial	2017
Ansuri Patra	Design and analysis of probe-fed cylindrical DRA	2019

Significance Performance

1. Initiate M.Sc. Program in Electronics of West Bengal State University, Barasat.

2. Conference Organized:

- Served as ***Local Arrangements Co-chair*** in the first edition of ***IEEE Int. Conf. on Applied Electromagnetics*** (AEMC 2007), at Institute of Radio Physics and Electronics (University of Calcutta), Kolkata, India.
- Served as ***Local Arrangements Co-chair*** in the second edition of ***IEEE Int. Conf. on Applied Electromagnetics*** (AEMC 2009), at Hyatt Regency, Kolkata, India.
- Served as ***Finance Co-chair*** in the ***IEEE ComSoc Society sponsored International Conference on Communications, Devices and Intelligent Systems*** (CODIS 2012), at Jadavpur University, Kolkata, India.

3. Departmental Activities Performed:

- Serving as a member of ***Board of Studies (BOS)*** of the Department of Electronics and Telecommunication Engineering, Jadavpur University, Kolkata, India from July 2010 to till date.
- Contributed to set up the ***Advance Microwave Electronics Laboratory*** at the Department of Electronics and Telecommunication Engineering, Jadavpur University, Kolkata, India.
- Arranged ***Social Function*** for the faculty members, staffs and students in the year 2011 and 2012 for the Department of Electronics and Telecommunication Engineering, Jadavpur University, Kolkata, India.
- Assisted the Head of the Department of the Department of Electronics and Telecommunication Engineering, Jadavpur University in ***Accreditation*** work of the department in 2014.

4. Contribution as a Reviewer

Research Article

- **IEEE Trans. On Antenna and Propagation**
- **IETE Research**
- Reviewed research paper for the journal of **Electromagnetic Waves and Applications**.
- Reviewed research paper for the journal "***Institute of Engineers***".
- Reviewed research paper for the international journal "***Progress In Electromagnetics Research (PIER)***".
- Reviewed research paper for the journal of **International Journal of Electronics.**
- Reviewed research paper for the journal of **International Journal of Antenna and Propagation.**
- **IET**
- **International journal of communication**
- **Journal of Engineering**
- **International Journal of RF and Microwave Computer-Aided Engineering**
- **International Journal of Microwave and Wireless Technologies**

Ph.D. Thesis Review

Name of the Research Scholar	Title of Ph.D. Thesis	University	Supervisor
Jonathan Benson Pinifolo	Design Of A Spectrum Re-Use System A Case Study For Television White Spaces (Tvws) In Malawi	University Of Johannesburg	Prof. Babu Sena Paul
Aritra Bhowmik	Studies on multiband operations of microstrip antennas	NIT, Durgapur	Prof. Anup Kr. Bhattacharjee

5. Invited talks Delivered:

- Delivered a lecture for the advancement of the students of Bachelor of Engineering (B.E) on ***"Some aspects of printed antennas for wireless application"*** at the venue of the institution ***Dumkal Institute Engineering and Technology***, Murshidabad, West Bengal, India in 2011.
- Delivered a lecture for the advancement of the students of Bachelor of Engineering (B.E) on ***"Recent Advance Studies in Microstrip Patch Antenna"*** at the venue of the institution ***Dumkal Institute Engineering and Technology***, Murshidabad, West Bengal, India in 2013.

6. Conferences Attended:

- IEEE CODEC – 2004 (International), Kolkata, India.
- IEEE URSI – GA, 2005 (International), Delhi, India.
- MICROWAVE – 2006 (National), Rajasthan, India.
- IEEE CODEC – 2006 (International), Kolkata, India.
- IEEE- AEMC - 2007 (International), Kolkata, India.
- IEEE-VDAT- 2007, Kolkata, India.
- MICROWAVE – 2008 (International), Rajasthan, India.
- IEEE- AEMC - 2009 (International), Kolkata, India.
- ICMARS - 2009 (International), Rajasthan, India.
- ELECTRO - 2009 (International), Varanasi, India.
- APSYM-2010 (National), Cochin, India.

7. Workshops Attained

- ***Microwave Engineering and Antennas***: ECE and EIE Dept., College of Engineering and Management, Kolaghat, India. 17-21 July 2006.
- ***Nanotechnology****:* TEQIP, University of Calcutta. 24-25 Mar. 2006.
- ***Radar systems: Recent Trends and Application***: Radio Physics and Electronics, 8th Sep. 2006.
- ***Air Interface Design for Broadband Wireless Systems: WIMAX, 3 GPP LTE, IMT-Advanced***. Radio Physics and Electronics. 4-6 Aug. 2008.
- ***Microwaves in Space****:* AP-MTT joint chapter of IEEE Calcutta Section. Jadavpur University. 08 Sep. 2008.
- ***EM THEORY & ANTENNAS****:* AP-MTT joint chapter of IEEE Calcutta Section. Heritage Institute of Technology. 27 Nov. 2008.

8. List of Publication:

a) Papers published in Journals (SCI Indexed: 29)

1. **M. Biswas,** S. Banik and M. Dam, "Li's Formula Extended to Determine Accurate Resonant Frequency of a Rectangular Patch Antenna in Multi-dielectric Layers", ***Progress In Electromagnetics Research B,*** vol. 79, pp. 21-44, 2017.

2. **M. Biswas**, and M. Sen, "Fast and accurate model for a coax-fed rectangular patch antenna with varying aspect ratio, feed location and substrate electrical parameters," ***Journal of Electromagnetic Waves and Applications,*** vol. 33, pp. 428-453, 2019.

3. **M. Biswas** and M. Dam, "Closed-form model to determine the co-axial probe reactance of an equilateral triangular patch antenna", ***International Journal of Microwave and Wireless Technologies,*** vol. 10, pp. 801-813, 2018.

4. **M. Biswas** and M. Dam, "CAD oriented improved cavity model to investigate a 30^0-60^0-90^0 right angled triangular patch antenna on single, composite and suspended substrate for the application in portable wireless equipments", ***IET Microwaves, Antennas & Propagation,*** vol. 12, pp. 425-434, 2018.

5. **M. Biswas** and M. Sen, "Design and development of coax-fed electromagnetically coupled stacked rectangular patch antenna for broad band application", ***Progress In Electromagnetics Research B,*** vol. 79, pp. 21-44, 2017.

6. M. Dam, and **M. Biswas**, "Investigation of a right-angled isosceles triangular patch antenna on composite and suspended substrates based on a CAD-oriented cavity model,***" IETE Journal of Research***, vol. 63, pp. 248-259, Jan. 2017.

7. A. Mandal, and **M. Biswas**, "Design and Development of a Rectangular Patch Sensor for Dielectric Permittivity Determination," ***International journal of microwave and optical technology,*** vol. 11, pp. 196-203, May 2016.

8. **M. Biswas**, and A. Mandal, "Experimental and theoretical investigation to predict the effect of superstrate on the impedance, bandwidth, and gain characteristics for a rectangular patch antenna," ***Journal of Electromagnetic Waves and Applications,*** vol. 29, pp. 2093-2109, Oct. 2015.

9. **M. Biswas**, and A. Mandal, "Experimental and theoretical investigation of resonance and radiation characteristics of superstrate loaded rectangular patch antenna," ***Microwave and Optical Technology Letters,*** vol. 57, pp. 791-799, April. 2015.

10. **M. Biswas**, and A. Mandal, "Design and development of an equilateral patch sensor for determination of permittivity of homogeneous dielectric medium," ***Microwave and Optical Technology Letters,*** vol. 56, pp. 1097-1104, May. 2014.

11. **M. Biswas** and M. Sen, "Design and development of rectangular patch antenna with superstrates for the application in portable wireless equipments and aircraft radome", ***Microwave and Optical Technology Letters,*** vol. 56, pp. 883-893, Apr. 2014.

12. **M. Biswas** and M. Dam, "Theoretical and experimental studies on characteristics of an equilateral triangular patch antenna with and without variable air gaps", ***Microwave and Optical Technology Letters,*** vol. 55, pp. 2271-2277, Oct. 2013.

13. **M. Biswas**, S. Banik, M. Biswas, and A. Shukla, "CAD model to predict the effect of radome on the characteristics of rectangular patch antenna", ***Microwave and Optical Technology Letters,*** vol. 55, pp. 2460-2468, Oct. 2013.

14. **M. Biswas** and S. Banik, "Fast and accurate model to investigate the effect of composite and suspended substrate on the characteristics of circular patch antenna", ***ActaTechnica,*** vol. 58, pp. 223-238, 2013.

15. **M. Biswas,** and M. Dam, "Characteristics of Equilateral Triangular Patch Antenna on Suspended and Composite Substrates," ***Electromagnetics,*** vol. 33, pp. 99-115, 2013.

16. M. Sen and **M. Biswas**, "Cad model to predict the effect of radome on the characteristics of rectangular patch antenna", ***Int. J. of Engineering Science and Technology,*** vol. 5, pp. 555-563, Mar. 2013.

17. **M. Biswas,** and M. Dam, "Fast and Accurate Model of Equilateral Triangular Patch Antennas with and without Suspended Substrates," ***Microwave and Optical Technology Letters,*** vol. 54, pp. 2663-2668, Nov. 2012.

18. **M. Biswas,** and S. Banik, "Characteristics of Circular Patch Antenna with and without Air-Gaps," ***Microwave and Optical Technology Letters,*** vol. 54, pp. 1692-1699, Jul. 2012.

19. **M. Biswas**, and A. Mandal**, "**The Effect of Radome on Resonance Characteristics of an Equilateral Triangular Microstrip Patch Antenna," ***Int. J. of Engineering Science and Technology,*** vol. 3, pp. 536-543, Jan. 2011.

20. **M. Biswas**, and A. Mandal**, "**CAD Model to Compute the Input Impedance of an Equilateral Triangular Microstrip Patch Antenna with Radome," ***Progress In Electromagnetics Research M,*** vol. 12, pp. 247-257, 2010.

21. S. Chattopadhyay**, M. Biswas**, J. Y. Siddiqui, and D. Guha**,** "Input impedance of rectangular microstrip patch with variable air gap and varying aspect ratio," ***IET Microwaves Antennas and Propagat.,*** vol. 3, pp. 1151-1156, Dec. 2009**.**

22. **M. Biswas**, and D. Guha**, "**Input Impedance and Resonance Characteristics of Superstrate Loaded Triangular Microstrip Patch," ***IET Microwaves Antennas and Propagat.,*** vol. 3, pp. 92-98, Feb. 2009**.**

23. S. Chattopadhyay**, M. Biswas**, J. Y. Siddiqui, and D. Guha**, "**Rectangular microstrips with variable air gap and varying aspect ratio: Improved formulations and experiments," ***Microwave and Optical Technology Letters,*** vol. 51**,** No.1, pp.169-173, Jan. 2009.

24. D. Guha**, M. Biswas**, and J. Y. Siddiqui**,** "Harrington's Formula Extended to Determine Accurate Feed Reactance of Probe-fed Microstrip Patches," ***IEEE Antennas and Wireless Propagation Letters,*** vol. 6**,** pp.33-35, 2007.

25. **M. Biswas,** J. Y. Siddiqui, D. Guha, and Y. M. M. Antar, "Effect of a Cylindrical Cavity on the Resonance of a Circular Microstrip Patch With Variable Air-Gap," ***IEEE Antennas and Wireless Propagation Letters,*** vol. 5, pp.418-420, 2006.

26. D. Guha, S. Biswas, **M. Biswas**, J. Y. Siddiqui and Y. M. M. Antar, " Concentric Ring Shaped Defected Ground Structures for Microstrip Applications" ***IEEE Antennas and Wireless Propagation Letters,*** vol. 5, pp.402-405, 2006**.**

27. S. S. Iqbal, **M. Biswas**, J. Y. Siddiqui and D. Guha, "Performance of cavity backed inverted microstrip broadband antenna," *I. J. Radio and Space Phy.*, Vol. 35, pp. 54-58, Feb. 2006.

28. D. Guha, **M. Biswas** and Y. M. M. Antar, "Microstrip patch antenna with defected ground structure for cross polarization suppression," ***IEEE Antennas and Wireless Propagation Letters***, vol. 4, pp. 455-458, 2005**.**

29. D. Guha, Y. M. M. Antar, J. Y. Siddiqui and **M. Biswas**, "Resonant resistance of probe and microstrip line-fed circular microstrip patches," ***IEE Proc. Microwaves Antennas Propagat.,*** vol. 152, No.6, pp. 481-484, Dec. 2005.

b) Papers published in Conference Proceedings: Total: 49

30. Bidisha Biswas, Durjoy Roy, and **Manotosh Biswas**, "Investigation of rectangular dielectric resonator antenna with varying probe-length,"***5th International Conference on Innovations in Electronics and Communications Engineering (ICIECE-2016),*** pp. 83, Jul.8-9, 2016, Hyderabad, India.
31. Mausumi Sen, and **Manotosh Biswas**, "Input impedance of a rectangular patch antenna in multi-dielectric layers,"***5th International Conference on Innovations in Electronics and Communications Engineering (ICIECE-2016),*** pp. 84, Jul.8-9, 2016, Hyderabad, India.
32. Sourav Banik, and **Manotosh Biswas**, "Experimental and theoretical investigation of resonant frequency of electrically thick and thin circular patch antennas,"***5th International Conference on Innovations in Electronics and Communications Engineering (ICIECE-2016),*** pp. 85, Jul.8-9, 2016, Hyderabad, India.
33. M. Dam, S. Mazumder, and M. Biswas, "CAD model to compute input impedance and bandwidth of tunable right angle isosceles triangular patch antenna," ***Third International Conference on Computer, Communication, Control and Information Technology (C3IT-2015)***, pp. 1-4, 7-8 Feb. 2015, Hooghly, India.
34. M. Dam, B. Chakraborty, and **M. Biswas**, "Resonant frequency of 30^0-60^0-90^0 right angle triangular patch antenna with and without suspended substrate, " ***International Conference on Industrial Engineering Science and Applications (IESA-2014),*** pp.219-222, Apr. 2-4, 2014. Durgapur, India.
35. S. Banik, M. Sen and **M. Biswas**, "Resonant Frequency of a Rectangular Patch in Multilayered Dielectric Media," ***IEEE International Conference on Microwave and Photonics (ICMAP-2013)***, pp. 1-6, Dec. 13-15, 2013, Dhanbad, India.
36. M. Dam, S. Mazumdar and **M. Biswas**, "Accurate CAD Model for Computation of Input Impedance of Equilateral Triangular Patch Antenna on Suspended and Composite Substrates," ***IEEE International Conference on Microwave and Photonics (ICMAP-2013)***, pp. 1-4, Dec. 13-15, 2013, Dhanbad, India.
37. M. Dam, Sk. Sabiruddin, and **M. Biswas**, "Accurate model to compute of Resonant Frequency of Right Angle Isosceles Triangular Patch Antenna," ***IEEE. Int. Conf. on Applied Electromagnetics (AEMC-13)***, Dec. 18-20, 2013, Bhubaneswar, India.
38. M. Dam, and **M. Biswas**, "CAD model to compute the effect of air gap on the band width of an equilateral triangular patch antenna," ***Antenna Test and measurement Society conference (ATMS-2013)***, pp. 180-183, Feb 11-13, 2013, Kolkata, India.
39. M. Sen, M. Biswas and **M. Biswas**, "Improved cad model to compute the resonant frequency of rectangular patch covered by dielectric superstrate," ***Antenna Test and measurement Society conference (ATMS-2013)***, pp. 207-210, Feb 11-13, 2013, Kolkata, India.
40. A. Shukla and **M. Biswas**, "Characteristics of cavity backed triangular patch antenna with variable air gap and cavity side length," ***Antenna Test and measurement Society conference (ATMS-2013)***, pp. 187-190, Feb 11-13, 2013, Kolkata, India.
41. M. Dam, P. Ghosh, and **M. Biswas**, "Improved Cavity Model to Compute the Resonant Resistance of an Equilateral Triangular Patch Antenna With and Without Air Gap,"

International Conference on Computation and Communication Advancement (IC3A-2013), pp. 302-305, Jan. 11-12, 2013, Nadia, India.

42. S. Banik and **M. Biswas**, "The effect of composite and suspended substrate on resonant resistance of circular microstrip patch antenna", ***IEEE International Conference on Communications, Devices and Intelligent Systems (CODIS-2012)***, pp. 235-238, Dec. 28-29, 2012, Kolkata, India.
43. M. Dam, and **M. Biswas**, "Fast and Accurate Model to Compute the Resonant frequency of Triangular Patch Antenna on Suspended and Composite Substrates," ***IEEE International Conference on Communications, Devices and Intelligent Systems (CODIS-2012)***, Dec. 28-29, 2012, Kolkata, India.
44. A. Mandal, M.Biswas and **M. Biswas**, "Experimental and theoretical investigation of resonance and bandwidth characteristics of an inverted equilateral triangular patch antenna,"***13th National symposium on Antenna and Propagation (APSYM-2012)***, pp.111-115, Dec. 17-19, 2012, Cochin, India.
45. S. Banik and **M. Biswas**, "Accurate determination of effective permittivity of circular microstrip patch antenna on composite and suspended substrate", ***13th National symposium on Antenna and Propagation (APSYM-2012)***, pp.116-121, Dec. 17-19, 2012, Cochin, India.
46. M. Dam, S. Mazumder, and **M. Biswas**, "Improved Computation of Resonant Resistance of a Tunable Equilateral Triangular Patch Antenna," ***13th National symposium on Antenna and Propagation (APSYM-2012)***, pp.151-155, Dec. 17-19, 2012, Cochin, India.
47. A Mandal, and **M. Biswas**, "The effect of radome on radiation characteristics of an equilateral triangular patch antenna," ***Antenna Test and measurement Society conference (ATMS- 2012)***, pp. 82-84, Feb. 2-3, 2012 Mumbai, India.
48. S. Banik, and **M. Biswas**, "The resonant frequency of a circular patch on composite and suspended substrate," ***Antenna Test and measurement Society conference (ATMS- 2012)***, pp. 141-144, Feb. 2-3, 2012 Mumbai, India.
49. A. Sukla, and **M. Biswas**, "CAD Model to Compute the Resonant Frequency of Cavity Backing Triangular Patch Antenna," ***Antenna Test and measurement Society conference (ATMS- 2012)***, pp. 197-200, Feb. 2-3, 2012 Mumbai, India.
50. S. Dutta, and **M. Biswas**, "The Resonant Frequency of Triangular Shape Dielectric Resonator Antenna," ***Antenna Test and measurement Society conference (ATMS- 2012)***, pp. 201-203, Feb. 2-3, 2012 Mumbai, India.
51. M. Dam, and **M. Biswas**, "CAD Model to Compute the Resonant Frequency of Triangular Patch Antenna with and without Air Gap," ***Antenna Test and measurement Society conference (ATMS- 2012)***, pp. 153-156, Feb. 2-3, 2012 Mumbai, India.
52. M. Sen, and **M. Biswas**, "CAD Model to Predict the Effect of Radome on the Input Impedance Characteristics of Rectangular Patch Antenna for wireless application," ***ICCIA-2011***, Dec.26-28, 2011, pp. 84, Kolkata, India.
53. S. Banik, and **M. Biswas**, "Fast and accurate CAD model to compute the input impedance of circular patch antenna used for mobile communication," ***ICCIA- 2011***, pp. 57, Dec.26-28, 2011, Kolkata, India.

54. A. Sukla, and **M. Biswas**, "CAD Model to Compute the Input Impedance of Cavity Backing Triangular Patch Antenna for wireless application," ***ICCIA- 2011***, pp. 57, Dec.26-28, 2011, Kolkata, India.

55. S. Dutta, and **M. Biswas**, "The input impedance of triangular shape dielectric resonator antenna," ***AEMC & IAW - 2011***, Dec.16-18, 2011, Kolkata, India.

56. M. Dam, and **M. Biswas**, "CAD Model to Compute the Input Impedance of Tunable Triangular Patch Antenna," ***AEMC & IAW - 2011***, Dec.16-18, 2011, Kolkata, India.

57. S. Banik, and **M. Biswas**, "Improved CAD Model to Compute the Input Impedance of Tunable Circular Patch Antenna," ***AEMC & IAW- 2011***, Dec.16-18, 2011, Kolkata, India.

58. M. Sen, and **M. Biswas**, "CAD Model to Predict the Effect of Radome on the Resonance Characteristics of Rectangular Patch Antenna," ***INDICON- 2011***, pp. 40, Dec.16-18, 2011, Hyderabad, India.

59. S. Banik, and **M. Biswas**, "Improved CAD Model to Compute the Resonant Frequency of Tunable Circular Patch Antenna," ***INDICON- 2011***, pp. 40, Dec.16-18, 2011, Hyderabad, India.

60. **M. Biswas**, and S. Banik, "Improved CAD Model to Compute the Resonant Frequency of Circular Patch Antenna With and Without Air Gap," ***12th National Symposium on Antenna and Propagation (APSYM-2010)***, pp. 35-40, Dec.14-16, 2010, Cochin, India.

61. **M. Biswas**, and M. Dam, "CAD Model to Compute the Resonant Frequency of a Tunable Equilateral Triangular Patch Antenna," ***12th National Symposium on Antenna and Propagation (APSYM-2010),*** pp. 23-29, Dec.14-16, 2010, Cochin, India.

62. **M. Biswas**, and A. Mondal, "CAD Model to Compute the Input Impedance of an Inverted Equilateral Triangular Patch Antenna," ***12th National Symposium on Antenna and Propagation (APSYM-2010),*** pp. 30-34, Dec.14-16, 2010, Cochin, India.

63. **M. Biswas**, and A. Mondal, "Improved CAD Formulae to Calculate the Input Impedance of an Equilateral Triangular Microstrip Patch Including Radome Effect," ***ELECTRO-09***, p.297-299, Dec.22-24, 2009, Varanasi, India.

64. **M. Biswas**, and A. Mondal**,** "CAD Model to Compute the Resonant Frequency of an Inverted Microstrip Triangular Patch Antennas," ***ICMARS-2009***, p.23, Dec.19-21, 2009, Rajasthan, India.

65. **M. Biswas**, and A. Mondal, "CAD Model to Compute the Resonant Frequency of an Equilateral Triangular Microstrip Patch Antenna Including Radome Effect," ***AEMC-09***, Dec.14-16, 2009, Kolkata, India.

66. **M. Biswas**, and D. Guha**, "**Experimental Studies of Circular Microstrip Radiator Backed a Cylindrical Cavity," ***APSYM-2008***, p.13-18, Dec. 29-31, 2008, Cochin, India.

67. **M. Biswas**, and D. Guha**, "**Experimental investigation of a equilateral triangular microstrip antenna with a dielectric radome," ***Int. Conf. on Microwave-2008***, p.356-358, Nov.21-24, 2008, Jaipur, India.

68. S. Chattopadhyay**, M. Biswas**, J. Y. Siddiqui and D. Guha**,** "CAD of mechanically tunable rectangular microstrip patch with variable aspect ratio," *Proc.* ***IEEE. Int. Conf. on Applied Electromagnetics (AEMC-07),*** Dec.19-20, 2007, Kolkata, India.

69. D. Guha, J. Y. Siddiqui , **M. Biswas**, Sudipta Chattopadhyay, and Sujoy Biswas, "Microstrip Radiating Structures: Theoretical and Experimental Investigations Executed in Recent Years at the University of Calcutta," *Proc.* ***IEEE. Int. Conf. on Applied Electromagnetics (AEMC-07),*** Dec.19-20, 2007, Kolkata, India.

70. D. Guha, **M. Biswas**, and J.Y. Siddiqui "Investigations of Compact Printed Antenna Backed by Metallic Cavity" *Proc.* ***Golden Jubilee Symposium on Radio Science (INCURSI-2007)***, Feb. 21-24, 2007, New Delhi, India.

71. S. Chattopadhyay**, M. Biswas**, J. Y. Siddiqui and D. Guha**,** "CAD design of a rectangular patch with variable air- gap," *Proc.* ***Int. Conf. on Computers and Devices for communication (CODEC-06),*** p.53, Dec. 2006, India.

72. **M. Biswas**, J. Y. Siddiqui, and D. Guha, **"**Improved Formulations to Determine Input Impedance of a Triangular Microstrip Antenna Loaded with Dielectric Radomes," **Microwave-*2006,*** p.54-57, Oct. 2006, Jaipur, India.

73. **M. Biswas**, S. Biswas, D. Guha and Y.M.M. Antar, "New Defected Ground Plane **Structure** for Microstrip Circuit and Antenna Applications," *Proc.* ***XXVIIIth URSI General Assembly***, Oct. 2005, Delhi, India.

74. **M. Biswas**, J. Siddiqui and D. Guha, "Computer Aided Design of Triangular Microstrip Patch Antenna in Multilayered Media," *Proc.* ***XXVIIIth URSI General Assembly***, Oct. 2005, Delhi, India.

75. **M. Biswas** and D. Guha **"**Broadband Inverted Microstrip Patches for Mobile Communication Systems**",** *Proc.* ***XVIIIth URSI General Assembly***, Oct. 2005, Delhi, India.

76. **M. Biswas**, M. G. Tiary, K. Gupta, L. Sen, J. Y. Siddiqui and D. Guha, **"**Characteristicsof Cavity Enclosed Circular Microstrip Patch Radiator**,"** *Proc.* ***Int. Conf. on Computers and Devices for communication (CODEC-04),*** p.143, Jan. 2004, India.

77. D. Guha, S.S. Iqbal, **M. Biswas** and J. Y. Siddiqui, "Effect of the Cavity Enclosure on the Resonance Characteristics of an Inverted Microstrip Stacked Patch Antenna," *Proc.* ***Asia Pacific Microwave Conference (APMC'04)***, p.875, Dec. 2004, India.

78. D. Guha, **M. Biswas** and J. Y. Siddiqui, "New CAD Model for Cavity-Backed Circular Microstrip Antenna" *Proc.* ***IEEE Int. Symp. on Antennas Propagat..***, vol.4, pp. 3621-3624, California, USA, June 2004.

Personal Information:

Date of Birth: 11th October 1976.

Nationality: Indian

Father's Name: Manmatha Biswas

Marital Status: Married

Permanent Address: Vill-Satsimulia, P.O-Nimtala Bazar, Dist- Nadia, Pin-741257, West Bengal, India.

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