

Curriculum Vitae



Name : Dr. Bharati. A. Singh

Highest Qualification : PhD. (Electronics)

Academic Performance B.E. EXTC: Distinction
M.E. EXTC: Distinction
PhD. (Electronics)

Present Status : Associate Professor

Email : bhartisingh@somaiya.edu

Academic experience: - 27years : 26.5 years in KJSCE
Six months in VESIT, Chembur, Mumbai

Industrial experience : 1 year

CAREER AND EDUCATION

Professional Qualification

DEGREE	Year of passing	Institute
PhD (Electronics)	March 2019	VJTI, Mumbai
M TECH(Electronics and Telecommunication)	2007	VJTI, Mumbai
BE (Electronics and Telecommunication)	1992	NIT, Jaipur

RESEARCH INTERESTS

- **Antennas**
- **Antenna Arrays**
- **Wireless Communication**
- **Optical Communication**
- **Internet of Things**

COURSES TAUGHT

Class	Names of courses taught
UG	Basic Electrical and Electronics Engineering, Logic Circuits, Electronic Engineering Materials, Communication systems, Digital Communication, Wireless Communication, Optical Fiber Communication
PG	Optical Communication, Advanced Antenna Arrays, Wireless and Mobile Communication

PUBLICATIONS

Conferences /Seminars/ Journal Papers/Publications

JOURNAL PAPERS

1. B. Singh, N. Sarwade, K. P. Ray & A. A. Deshmukh, "Tapered antenna array with non-identical Triangular MSA elements for FSLL reduction", Springer's Wireless Personal Communication Journal, DOI : 10.1007/s11277-019-06218-z.
2. B. Singh, N. Sarwade, and K. P. Ray, "Compact Planar Antenna Array with Tapering in Both Planes for desired First side lobe reduction", IEEE Antenna and Wireless Propagation Letters, Vol. 18, issue 3, pp. 531-535, 2019. DOI: 10.1109/LAWP.2019.2896114
3. Bharati Singh, Nisha Sarwade and K. P. Ray, "Antenna Array using Non-identical Truncated Circular Elements for FSLL reduction", PIER M Journal, Vol. 64, pp. 99-107, 2018
4. B. Singh, N. Sarwade & K. P. Ray, "A 50Ω Microstrip Line Fed Shorted Equilateral Triangular Microstrip Antenna," Microwave Optical Tech. Letters, <https://doi.org/10.1002/mop.31139>
5. B. Singh, N. Sarwade, and K. P. Ray, "Compact series fed Tapered Antenna Array using unequal rectangular microstrip antenna elements," Microwave Optical Tech. Letters, Vol. 59, no.8, pp.1856-1861, 2017. <https://doi.org/10.1002/mop.30640>.
6. Bharati Singh, Nisha Sarwade and K. P. Ray, "Non-identical Rectangular Microstrip Antenna Arrays with Corporate Feed for Aperture Tapering", Accepted and under publication, IETE Journal of research, Available: <http://dx.doi.org/10.1080/03772063.2017.1356754>

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7. Bharati Singh , Sarwade N and Ray KP. Antenna Array Performance with Number of Elements for Aperture Distributions. In: IETE Technical Review 2016, Available: <http://dx.doi.org/10.1080/02564602.2016.1139476>
8. Naheed Anjum Khan, B. Singh, “ Truncated Microstrip Antenna Design with Dumbbell Defected Ground Structure" International Journal of Electrical, Electronics and Data Communication, ISSN: 2320-2084 Volume-3, Issue-1(Jan.-2015), pp 27-30
9. Darshana suryawanshi, B. Singh, “ A Compact Rectangular Monopole Antenna with Enhanced Bandwidth” IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) e-ISSN: 2278-2834,p- ISSN: 2278-8735.Volume 9, Issue 2, Ver. VII (Mar - Apr. 2014), pp 54-57
10. Naheed Anjum Khan, B. Singh, “Microstrip Antenna Design With Defected Ground Structure” IOSR Journal of Electronics and Communication Engineering (IOSR-JECE)e-ISSN: 2278-2834,p- ISSN: 2278-8735.Volume 9, Issue 2, Ver. VIII (Mar-Apr. 2014), pp 46-50
11. Radhika Bodhe, B. Singh, “Diurnal Effects on Satellite Network performance Measured in Tropical Region” IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE)e-ISSN: 2278-1676,p-ISSN: 2320-3331 e-ISSN 2278-1676 volume 5,issue 2(mar.-Apr.2013)pp 45-48, 16thApril 2013
12. Twisha Pandey, B. Singh,” A Review on Microwave Based Moisture Measurement System for Granular Materials,” IOSR Journal of Electronics and Communication Engineering (IOSRJECE)ISSN: 2278-2834, ISBN: 2278-8735. Volume 3, Issue 2 (Sep-Oct. 2012), PP 37-41
13. Nandita Khobragade, B. Singh,” Effect of Noncooperation in Vehicular Delay Tolerant Network for Multicopy Routing and its Solution,” International Journal of Electronics Communication and Computer Engineering ,Volume 3, Issue 5,pp 1052-1058, Sept 2012
14. Prathiba Joshi, B. Singh, “ V-BLAST AND STBC ALGORITHM COMPARISON FOR MOBILE TEXT DATA” International Journal IJCAIT,September 2012

CONFERENCE PAPERS

K. J. Somaiya College of Engineering, Mumbai-77
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15. B. Singh, N. Sarwade & K. P. Ray, "Naturally Tapered Series fed arrays for first sidelobe level reduction," Springer Nature Singapore Pte Ltd. 2018, H. Vasudevan et al. (eds.), Proceedings of International Conference on Wireless Communication, Lecture Notes on Data Engineering and Communications Technologies 19, pp 95-101 https://doi.org/10.1007/978-981-10-8339-6_11
16. B. Singh, N. Sarwade & K. P. Ray, "Uniform Linear Tapered Array using Non Identical Rectangular Microstrip Antenna elements," IEEE, AEMC, MIT, Aurangabad, 19-22 December 2017, accepted and presented, DOI: 10.1109/AEMC.2017.8325644
17. B. Singh, N. Sarwade & K. P. Ray, "Analysis of lower order and fundamental mode of shorted Equilateral Triangular Microstrip antenna with 50Ω Microstrip Line Feed," Presented at IEEE iAIM, 2nd International conference on Antenna Innovations and Modern Technologies for Ground, Aircraft and Satellite Applications, Bangalore, accepted and presented, DOI: 10.1109/IAIM.2017.8402526
18. B. Singh, N. Sarwade & K. P. Ray, "Tapered antenna array using non-identical Triangular MSA elements for First Sidelobe level reduction," IEEE Indian Antenna Week, DIAT, Pune
19. Bharati Singh, Nisha Sarwade and K. P. Ray, "A Compact Modified Corporate Feed Network for Antenna Arrays with non-identical Rectangular Microstrip antenna elements", APSYM 2016 (International Antenna and Propagation Symposium 2016, Cochin University of Science and Technology.
20. Harshal Jagtap, Bharati Singh, " Design and Analysis of Hemispherical Lens Antenna for Gain and Directivity Enhancement at C Band", International conference on Advanced Trends in Engineering(ICATE 2018), Datta Meghe College, Navi Mumbai, ISSN/ISBN No. 978-93-5267-422-0
21. Harshal Jagtap, Bharati Singh, "Enhancement of Gain and Directivity of a Rectangular Waveguide using hemispherical lens antenna at C band" International Conference On Computing, Communication, Control And Automation (ICCUBEA 2018), PCCOE, Pune, 16-18 August 2018.
22. R. Parikh, B. Singh, "Effects of slots on resonance frequencies of a Rectangular Microstrip Patch Antenna," IEEE, ICCUBEA, PCCOE, Pune, 16-18 August 2018.
23. Pooja R Naik, Bharati A Singh, Sanjay Thakur, "Dual band compact printed monopole antenna for Bluetooth (2.54 GHz) and WLAN (5.2 GHz) applications", IEEE proceedings on 2016 International Conference on Global Trends in Signal

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Processing, Information Computing and Communication (ICGTSPICC), pp 320-23

24. Roopesh R Patil, Bharati A Singh, SS Thakur, "Bandwidth Enhancement in Printed Rectangular Monopole Antenna Using Beveling Technique for UWB Applications", IEEE proceedings on 2015 Second International Conference on Advances in Computing and Communication Engineering, pp 345-48.
25. AR Nair, BA Singh, SS Thakur, "Design of Rectangular Microstrip 4x2 Patch Array Antenna at 2.4 GHz for WLAN Application", 2015 Second International Conference on Advances in Computing and Communication Engineering, pp 53-56
26. Shraddha.shah, Bharati Singh, " RFID BASED SCHOOL BUS TRACKING AND SECURITY SYSTEMS", published in conference proceedings of International Conference on Communications and Signal Processing,(ICCSP'16) held at MELAMARVATHUR, (CHENNAI) on 6th,7th and 8th April, 2016 organized by ieeexplore.
27. Leena M. Sanap, Swati Chaudhari, Bharati Singh, " BUILDING A REDUNDANT DATA ACQUISITION SYSTEM USING IDE AND PLC", published in conference proceedings of International Conference on Electrical, Electronics, Computer sciences, Mathematics, Physical Education and Management (ICEECMPE-16) held at Pune on 24th July, 2016 organized by ieeeforum. ISBN: 978-93-86083-70-8
28. Darshana R. Suryawanshi , Bharati A. Singh , "A Compact UWB Rectangular Slotted Monopole Antenna " 2014 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT), 978-1-4799-4190-2/14/\$31.00 ©2014 IEEE, PP 1130-1136
29. Sandhya Bhavsar, B. Singh," Electromagnetic Band Gap structure- incorporated in Antenna Array : A Review, National Conference E-NSPIRE -2K13, Pravara Rural Engineering College , LONI, 12th and 13th March 2013
30. Twisha Pandey, B. Singh," Miniature closed loop resonator band pass filter design using "Dumbbell and Slot" Defected Ground Structure," International Conference on Power System Operation and Energy Management, Mumbai, 20th Jan 2013
31. Twisha Pandey, B. Singh," A Review of Electromagnetic Simulation Technologies: FEM and MoM," " 2nd National Conference on Recent Trends in Wired & Wireless Communication, Technically co-sponsored by IEEE Bombay Section, SIES Graduate School of Technology, Nerul, Navi Mumbai

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32. Twisha Pandey, B. Singh, “ Microstrip Parallel Edge Coupled Bandpass Filter Design” 2nd National Conference on Recent Trends in Wired & Wireless Communication, Technically co-sponsored by IEEE Bombay Section, SIES Graduate School of Technology, Nerul, Navi Mumbai
33. Prathiba Joshi, B. Singh, “ V-BLAST AND STBC ALGORITHM COMPARISON FOR MOBILE TEXT DATA” International Journal IJCAIT, September 2012
34. Nandita Khobragade, “B. Singh, Performance Enhancement of Selfish Node in Vehicular Adhoc Network,” at National Conference on Recent Advances and Challenges in Engineering and management , Vidyalkar Institute of Technology, March 2012
35. Prathiba Joshi B. Singh, “MIMO SIMULATION USING V-BLAST ALGORITHM” National Conference CASP-2011 at BATU, Lonere
36. Bharati Singh, Amutha Jayakumar, “Future Trends in Electronics and Telecommunication for sustainable development- Vision 2020” on “ Synthesis of Linear Antenna Array by element spacing perturbation for reduction in Side-lobes and Sharp beamforming” Institute of Engineers (India), Pune Local Centre in October 2007
37. Bharati Singh, Amutha Jayakumar , “National conference for devices , Intelligent systems and Communication” on “Shaped beam pattern Synthesis of unequally Spaced Linear Antenna Arrays for improvement of Mobile Communication Capacity” in Manipal Institute of Technology in December 2007

Book Chapter

1. B. Singh, N. Sarwade & K. P. Ray, “Naturally Tapered Series fed arrays for first sidelobe level reduction,” Springer Nature Singapore Pte Ltd. 2018, H. Vasudevan et al. (eds.), Proceedings of International Conference on Wireless Communication, Lecture Notes on Data Engineering and Communications Technologies 19, pp 95-101 https://doi.org/10.1007/978-981-10-8339-6_11
2. **Bharati Singh**, N. Sarwade & K. P. Ray, “Analysis of unequally spaced linear Antenna Arrays to realize Aperture Tapering,” Springer Nature Singapore Pte Ltd. 2019, H. Vasudevan et al. (eds.), Proceedings of International Conference on Wireless Communication. Lecture Notes on Data Engineering and Communications Technologies

Poster Presentation

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1. B. Singh, N. Sarwade & K. P. Ray, “Antenna Array analysis and Synthesis” PhD colloquium VJTI Mumbai 17-18 March 2015.
2. B. Singh, N. Sarwade & K. P. Ray, “Antenna Array analysis and Synthesis with tapering in E plane ” PhD colloquium VJTI Mumbai, 4-5 April 2016
3. B. Singh, N. Sarwade & K. P. Ray, “Antenna Array analysis with non-identical elements” PhD colloquium VJTI Mumbai, 4-5 April 2016

Research Activities:

Sr. No	Project Title	Sponsoring Agency	Year	Amount (in Lakh)	Status
1	Microwave and Fabrication	MODROBS	2013-14	4	Submitted

Conferences and STTPs : Organized/Attended

Conferences and STTPs Attended and Organized

1. Attended a one week AICTE & ISTE approved course on " Networking Fundamentals with Hands on Training (in Collaboration with CISCO Networking Academy) from 1st July to 6th July 2019 at K J Somaiya college of Engineering
2. Attended an International Conference on Wireless Communication, Data Engineering and Communications Technologies, ICWICOM, October 11-12, 2019
3. Organizing member of Technical committee of STTP course on “RF and Microwave Antenna Design” organized by Department of EXTC, K J Somaiya College of Engineering, July 23-28, 2018.
4. Attended an International Conference on Wireless Communication, Data Engineering and Communications Technologies, ICWICOM, January 19-20 2018
5. Attended an IEEE International Applied Electromagnetics Conference, MIT, Aurangabad, 19-22 December 2017.
6. Attended an International conference on Antenna Innovations and Modern Technologies for Ground, Aircraft and Satellite Applications, Bangalore, IEEE, IAIM, 23-25 November 2017.

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7. Attended an International Conference IEEE Indian Antenna Week, Defense Institute of Armament Technology, Pune, June 5-9, 2017.
8. Attended 2 week QIP AICTE approved STTP Course on “Wave theory and its Applications” at VJTI, Mumbai , 2-7January 2017
9. Attended an International Conference on Antenna and Propagation symposium, CUSAT, Cochin, December 15-17, 2016
10. Attended 2 week QIP AICTE approved STTP Course on “Radio Frequency and Circuit Design” at VJTI, Mumbai , February 2015
11. Attended 2 week QIP AICTE approved STTP Course on “Advances in Wireless Communication” at VJTI, Mumbai , 3-7 February 2014
12. Attended a workshop on “ NBA’s Outcome Based Accreditation” at K J Somaiya college of Engineering, June 25-17, 2014
13. Attended 2 week ISTE approved STTP Course on “Design , testing, Performance evaluation and applications of Microwave antenna” at VIIT ,Pune , 18-22December 2012
14. Organized one week STTP on “Latest Trends in Microwave and Antenna Design Techniques” from January 12-16, 2009
15. Attended 2 week STTP Course on “Robotics and its Applications” in December 2007 at Father Agnel College of Engineering Bandra
16. Attended 2 week STTP Course on “Robotics and its Applications” in December 2007 at Father Agnel College of Engineering Bandra
17. Attended DEP on “Signals and Systems” at IIT B (Duration 4 monthsJan. 2005 – May 2005)
18. Attended 2 week STTP Course on in December 2004 “Digital Communication” at D J Sanghvi College of Engg.
19. Attended 2 week STTP Course on “ Object Oriented Modelling and design” in Nov. 2003 at SNTD , ITW Mumbai
20. Attended a one day Seminar on “Optical fibre communication” at Lokmanya Tilak college of Engg.

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21. Attended a five day workshop on “Open Office software” at K.J. Somaiya College of Engineering in December 2009
22. Attended a two day workshop on “IE3D Software” at K.J. Somaiya College of Engineering in January 2010

Extracurricular and Co-curricular activities

1. Arranged and attended industrial visit for Post Graduate students to TIFR, Mumbai on 10th October 2018
2. Arranged and attended industrial visit for Post Graduate students to Photonic Lab, SAMEER, Mumbai on 7th November 2017
3. Arranged and attended industrial visit for Post Graduate students to Electronic Beam Centre ,BARC , Kharghar on 14th October 2010
4. Arranged and attended industrial visit for students to DAKC (Dhirubhai Ambani Knowledge City) on September 24th 2008
5. Visit to Telecom Factory , Deonar with Students in 2008
6. Arranged a number of activities for students as IETE Secretary from June 2009 to June 2017.

Administrative activities:

SR. NO.	POSITION	NAME OF COMMITTEE	PERIOD
1	Associate HOD	EXTC Department	October 2018 onwards till date
2	PG Co-ordinator	PG Section ,KJSCE	July 2016 onwards till date
3.	IETE Faculty incharge	IETE ,EXTC Department	August 2015 – October 2017
4	DAC Committee	DAC ,EXTC Department	July 2015 onwards till date
5	Associate HOD	EXTC Department	October 2013 – August 2014
6	Member	Autonomy Syllabus Committee	July 2013 onwards
7	AICTE Website Co-ordinator	Institute Level Committee	August 2012 onwards
8	PG Teacher	Approval received from University dated July 2012	July 2012 onwards
9	Treasurer	ISTE College Level	November 2009- Jan 2010

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10	Chairperson	ISTE College Level	Feb 2010 till March 2012
11	Advisor	ISTE College Level	March 2012 onwards
12	Convener : Students Documentation	Departmental NBA Committee	August 2008- December 2011
13	PG Co-ordinator	PG Section ,KJSCE	August 2010 -Oct 2013
14	IETE Faculty incharge	IETE ,EXTC Department	August 2011 – August 2014
15	Committee member	F.Y. admission	August 2007 onwards
16	Lab incharge	ME Project Lab (EXTC)	August 2011 onwards till date
17	Lab incharge	(BCS Lab ETRX Dept)	Till August 2007
18	Convener : Faculty Development Documentation	Departmental NBA Committee (ETRX)	Until June 2005