

Somaiya Vidyavihar University

Name: Dr. Bharati Singh		E-mail: bhartisingh@somaiya.edu	
Contact No: 9820635742			
Department/Section: Electronics and Telecommunication			
College: K J Somaiya College of Engineering			
DOJ Somaiya: 17.11.1993	Career Experience: 30 Yrs	Industry Experience: 01 Yr	Teaching Experience: 29 Yrs
Present Academic Designation: Associate Professor		Present Administrative Designation: HoD	

Area of research/specialization and Courses Delivered
<p>Research domain/interests/areas</p> <ol style="list-style-type: none"> 1. Antennas 2. Antenna Arrays 3. Wireless Communication 4. Optical Communication 5. Internet of Things <p>Courses Delivered</p> <ol style="list-style-type: none"> 1. UG - Basic Electrical and Electronics Engineering, Logic Circuits, Electronic Engineering Materials, Communication systems, Controls systems, Digital Communication, Wireless Communication, Optical Fiber Communication 2. PG - Optical Communication, Advanced Antenna Arrays, Wireless and Mobile Communication 3. Ph.D. - Advanced Antenna Design

Recognition as a teacher by any University	UG: Yes	PG: Yes	Ph.D : Yes
<p>Details of Recognitions</p> <ol style="list-style-type: none"> 1. PG - Approval received from University dated July 2012 2. 			

Education					
Examination	Name of the Degree	University/Board	Institute/College	Year	CPI/SPI/ %Marks
Ph.D	Electronics	Mumbai University	VJTI, Mumbai	2019	Thesis Awarded on 15th March 2019
PG	Electronics and Telecommunicati on	Mumbai University	VJTI, Mumbai	2007	8.9 CGPA
UG	Electronics and Telecommunicati on	Rajasthan University	NIT, Jaipur	1992	77%

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Notable Experience Details					
Sr. No	Name of the organization	Designation	Date of Joining	Date of Leaving	Experience (Years)
1.	K. J. Somaiya college of Engineering Vidyavihar Mumbai	Associate Professor	01.07.2011	Till Date	11
2.	K. J. Somaiya college of Engineering Vidyavihar Mumbai	Assistant Professor	01.08.2008	30.06.2011	3
3.	K. J. Somaiya college of Engineering Vidyavihar Mumbai	Lecturer	17.11.1993	31.07.2008	15
4.	VESIT, Mumbai	Lecturer	01.06.1993	31.10.1993	0.6
5.	Nuetron Pvt India Ltd (A subsidy of MELTRON India Ltd), Mumbai	Customer Support Engineer	01.06.1992	31.05.1993	1

Research Accomplishments and Projects		
No of students pursuing Ph.D as on date: 01		No of students completed Ph.D as on date:
No of students completed PG thesis / Project work as on date: 15		No of students / groups completed UG projects as on date: 200
Publications Total: 40	Number of Peer review Journal papers: 16	Number of Conference papers: 24
Details of Publications: International Journals <ol style="list-style-type: none"> 1. Ruya Sakharkar, Dr. Bharti Singh, "Ethereum Application for Product Anti-Counterfeiting", International Journal of Scientific Research in Engineering and Management (IJSREM), Volume: 06 Issue: 10 October - 2022 2. Dishant Padalia, Abhishek Mazumdar and Bharati Singh, " A CNN-LSTM combination network for cataract detection using eye fundus images", arXiv:2210.160193v1 [cs.CV] 28 Oct 22 3. 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. 4. 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 5. 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 6. 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 7. 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. 8. 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>

9. 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>
10. 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

National Journals

11. 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
12. 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
13. 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, 16th April 2013
14. Twisha Pandey, B. Singh, "A Review on Microwave Based Moisture Measurement System for Granular Materials," IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) ISSN: 2278-2834, ISBN: 2278-8735. Volume 3, Issue 2 (Sep-Oct. 2012), PP 37-41
15. 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
16. Prathiba Joshi, B. Singh, "V-BLAST AND STBC ALGORITHM COMPARISON FOR MOBILE TEXT DATA" International Journal IJCAIT, September 2012

Conferences

17. 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.
18. 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
19. 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
20. 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
21. 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
22. 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

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- 2016 (International Antenna and Propagation Symposium 2016, Cochin University of Science and Technology.
23. 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
 24. 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.
 25. R. Parikh, B. Singh, "Effects of slots on resonance frequencies of a Rectangular Microstrip Patch Antenna," IEEE, ICCUBEA, PCCOE, Pune, 16-18 August 2018.
 26. 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 Processing, Information Computing and Communication (ICGTSPICC), pp 320-23
 27. 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.
 28. 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
 29. 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.
 30. 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
 31. 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
 32. 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
 33. 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
 34. 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
 35. 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
 36. Prathiba Joshi, B. Singh, " V-BLAST AND STBC ALGORITHM COMPARISON FOR MOBILE TEXT DATA" International Journal IJCAIT, September 2012
 37. Nandita Khobragade, "B. Singh, Performance Enhancement of Selfish Node in Vehicular

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<p>Adhoc Network,” at National Conference on Recent Advances and Challenges in Engineering and management , Vidyalankar Institute of Technology, March 2012</p> <p>38. Prathiba Joshi B. Singh, “MIMO SIMULATION USING V-BLAST ALGORITHM” National Conference CASP-2011 at BATU, Lonere</p> <p>39. 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</p> <p>40. 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</p>		
<p>Books/Book Chapters</p> <p>41. 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</p> <p>42. 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</p>		
<p>Patents/Copy Rights</p> <p>1. NA</p>		
<p>No of Research / consultancy / projects completed: Rs:_____</p>	<p>No of Research / consultancy / projects on-going: Rs:_____</p>	<p>No of Research / consultancy / projects on applied as on date: Rs:_____</p>
<p>Details of Research / consultancy / projects: Completed</p> <ol style="list-style-type: none"> 1. “Design and development of non-identical antenna arrays for the 5G wireless communication and mobile systems” at research institute Society for Applied Microwave Electronics Engineering and Research (SAMEER), IITB Campus, Mumbai, 2012-2017 2. “ Study and Analysis of effect of spacing between Antenna Array elements, its design and development” at research institute Society for Applied Microwave Electronics Engineering and Research (SAMEER), IITB Campus, Mumbai, 2006-2007 		
<p>IPR/ Copyrights</p> <p>1.</p>		
<p>FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered</p>		
<p>Attended</p> <ol style="list-style-type: none"> 1. Participated in IUCEE Annual Leadership Summit, July 9 to July 11, 2011 2. Have successfully achieved instructor level credential for completing one week STTP on “CCNA v7: Switching, Routing, and Wireless Essentials” course held by CISCO in August 2021 3. Have successfully achieved instructor level credential for completing one week STTP on 		

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- “CCNAv7: Enterprise Networking, Security, and Automation” course held by CISCO in August 2021
4. Have successfully achieved instructor level credential for completing one week STTP on “CCNA Routing and Switching: Introduction to Networks” course held by CISCO in December 2019
 5. Participated in the Faculty Development Program on Post Covid Challenges: What industry expects from Academia? held on 8 Jan 2021
 6. Attended a webinar on Webinar on Crpto-Innovation for low energy wireless networks in November 2020.
 7. Attended an International Conference on Wireless Communication, Data Engineering and Communications Technologies, ICWICOM, October 19-20 2019
 8. Attended an International Conference on Wireless Communication, Data Engineering and Communications Technologies, ICWICOM, January 19-20 2018
 9. Attended an IEEE International Applied Electromagnetics Conference, MIT, Aurangabad, 19-22 December 2017.
 10. Attended an International conference on Antenna Innovations and Modern Technologies for Ground, Aircraft and Satellite Applications, Bangalore, IEEE, IAIM, 23-25 November 2017.
 11. Attended an International Conference IEEE Indian Antenna Week, Defense Institute of Armament Technology, Pune, June 5-9, 2017.
 12. Attended 2 week QIP AICTE approved STTP Course on “Wave theory and its Applications” at VJTI, Mumbai , 2-7January 2017
 13. Attended an International Conference on Antenna and Propagation symposium, CUSAT, Cochin, December 15-17, 2016
 14. Attended 2 week QIP AICTE approved STTP Course on “Radio Frequency and Circuit Design” at VJTI, Mumbai , February 2015
 15. Attended 2 week QIP AICTE approved STTP Course on “Advances in Wireless Communication” at VJTI, Mumbai , 3-7 February 2014
 16. Attended a workshop on “ NBA’s Outcome Based Accreditation” at K J Somaiya college of Engineering, June 25-17, 2014
 17. Attended 2 week ISTE approved STTP Course on “Design , testing, Performance evaluation and applications of Microwave antenna” at VIIT ,Pune , 18-22December 2012
 18. Attended 2 week STTP Course on “Robotics and its Applications” in December 2007 at Father Agnel College of Engineering Bandra
 19. Attended 2 week STTP Course on “Robotics and its Applications” in December 2007 at Father Agnel College of Engineering Bandra
 20. Attended DEP on “Signals and Systems” at IIT B (Duration 4 monthsJan. 2005 – May 2005)

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21. Attended 2 week STTP Course on in December 2004 “Digital Communication” at D J Sanghvi College of Engg.
22. Attended 2 week STTP Course on “ Object Oriented Modelling and design” in Nov. 2003 at SNTD , ITW Mumbai
23. Attended a one day Seminar on “Optical fibre communication” at Lokmanya Tilak college of Engg.
24. Attended a five day workshop on “Open Office software” at K.J. Somaiya College of Engineering in December 2009
25. Attended a two day workshop on “IE3D Software” at K.J. Somaiya College of Engineering in January 2010

Organized

1. Organized a technical guest lecture on Wireless Communication latest trends on Thursday 4th Feb 2021
2. Member of Technical committee of 5 days STTP course on “RF Antenna : Design and Analysis” “organized by Department of EXTC, K J Somaiya College of Engineering, July 18-23, 2018.
3. Organized a 5 days STTP on, “Upcoming trends in Microwave Communication”, January 12 to 16 2009 in Department of EXTC K J Somaiya College of Engineering.
4. Initiated and designed the 5 day Placement Preparation drive for the current TY students with the help of LY students to help the students plan and prepare for the placement in next academic year, 18th April 2022 to 22nd April 2022
5. Motivating faculty and staff to conduct a one day offline workshop on, “INTRODUCTION TO MSP430 MICROCONTROLLER” on 26th Feb, 2022
6. Motivating faculty and students to conduct an interactive four day workshop on LTspice so that second year students get a hands-on experience with the software before the Lab sessions begin. Workshop dates: 28th, 29th August and 4th, 5th September 2021.
7. Arranged and attended industrial visit for Post Graduate students to TIFR, Mumbai on 10th October 2018
8. Arranged and attended industrial visit for Post Graduate students to Photonic Lab, SAMEER, Mumbai on 7th November 2017
9. Arranged and attended industrial visit for Post Graduate students to Electronic Beam Centre ,BARC , Kharghar on 14th October 2010
10. Arranged and attended industrial visit for students to DAKC (Dhirubhai Ambani Knowledge City) on September 24th 2008
11. Visit to Telecom Factory , Deonar with Students in 2008
12. Arranged a number of activities for students as IETE Secretary from June 2009 to June 2017.

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Notable Positions and Responsibility	
1.	HoD, EXTC, EXTC Department, July 1, 2021 till date
2.	Chairman, BoS (Board of Studies), EXTC Department, July 1, 2021 till date
3.	Member of FOET (Faculty of Engineering and Technology) , As a Chairman, BoS, July 1, 2021 till date
4.	Member of Institute level scrutiny committee for the post of Admin Officers, Adhoc Faculty, Institute level 2021-22
5.	Member of Institute level scrutiny committee for the post Regular Faculty, Institute level 2022-23
6.	Member of College Examination Squad (CES), Institute level, 2021-22
7.	Member of Internship Approval Committee : 2020-21, Institute level, 2021-22
8.	Member (a academia expert) for, PBoS (Polytechnique Board of Studies,) at Somaiya Campus External to Institute level committee
9.	Associate HoD, EXTC Department, October 2018 onwards June 2021
10.	PG Co-ordinator , PG Section ,KJSCE, July 2016 onwards till date
11.	IETE Faculty incharge, IETE, EXTC Department, August 2015 – October 2017
12.	DAC Committee, DAC ,EXTC Department, July 2015 onwards till date
13.	Associate HoD, EXTC Department, October 2013 –August 2014
14.	Member , Autonomy Syllabus Committee, July 2013 onwards
15.	AICTE Website Co-ordinator, Institute Level Committee, August 2012 onwards
16.	Treasurer, ISTE College Level, November 2009- Jan 2010
17.	Chairperson, ISTE College Level, Feb 2010 till March 2012
18.	Advisor ISTE College Level, March 2012 onwards
19.	Convener : Students Documentation, Departmental NBA Committee, August 2008- December 2011
20.	PG Co-ordinator , PG Section ,KJSCE, August 2010-Oct 2013
21.	IETE Faculty incharge, IETE ,EXTC Department, August 2011 –August 2014
22.	Committee member, F.Y. admission, August 2007 onwards
23.	Lab incharge, ME Project Lab (EXTC), August 2011 onwards till date
24.	Lab incharge, (BCS Lab ETRX Dept), Till August 2007
25.	Convener Faculty Development Documentation, Departmental NBA Committee ETRX Until June 2005

Date: 10 /02 / 2023

Signature of Faculty Member