

Dr. Balaji G. Hogade. (Ph. D. EXTC)

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Professional Qualification:

- ❑ **Ph.D in EXTC, 2014**
SVKMS, MPSTME, NMIMS University, Mumbai.
- ❑ **Master of Engineering (Power Elex), 1999**
Gulbarga University (PDACOE), Karnatka.
- ❑ **Bachelor of Engineering (Electronics), 1991**
Marathwada University, Aurangabad, Maharashtra

Short Biodata:

Dr. Balaji G. Hogade received Ph.D. in EXTC (Smart antenna for wideband wireless Networks) from NMIMS Mumbai in 2014, M.E. in Power Electronics from Gulbarga University, Karnataka, in 1999, B.E. in Electronics from Marathwada University Aurangabad in 1991. He is Head and Professor in Electronics Engineering Department in Terna Engineering College, University of Mumbai; He has guided number of projects and thesis in graduate and post-graduate level program. **Four students have completed their Ph. D. under his guidance.** Presently he is **guiding 2 Ph. D. students** in Mumbai University. **He has evaluated 2 Ph. D. Thesis from Savitribai Phule University, Pune.** He has produced several national and international publications. He has worked as a **Member of BOS in Electronics Engineering and Electrical Engineering in University of Mumbai.** His research interests include Wireless Network, Smart Antenna and Power Electronic and Drives.

Patents/ Products/ Consultancy:

Copyright:

1. **Copyright:** Prasad Kulkarni, B. G. Hogade, “ASIC Design of Radix-2, 8-Point FFT Processor, Extract from Register of Copyrights, Government of India, Registration Number L- 99658/2021.

Patents:

1. Prasad Kulkarni, B. G. Hogade, "ASIC Design of Radix-2,8-Point FFT Processor," Indian Patent Office, Government of India, Application Number 202121004749, Mar. 2021.
2. Ultra-wideband (UWB) antenna," Mahadu A. Trimukhe, Balaji G. Hogade, Application number 315547-001, Design patent **Granted and Published**, Journal No.20/2019 and Journal Date 17/05/2019.
3. ISM BAND COMPACT COTTON WEARABLE ANTENNA FOR BODY TEMPERATURE MONITORING, "TERNA ENGINEERING COLLEGE,NERUL,NAVI MUMBAI, MS.ASHA GHODAKE, DR.BALAJI HOGADE, Application No.202221051234 A, Publication Date : 11/11/2022.
4. ISM BAND COMPACT JEANS WEARABLE ANTENNA FOR GLUCOSE LEVEL MONITORING, "TERNA ENGINEERING COLLEGE,NERUL,NAVI MUMBAI, MS.ASHA GHODAKE, DR.BALAJI HOGADE" Application No.202221051238 A, Publication Date : 07/10/2022.

Reviewer:

1. Reviewer, International Conference on Innovations and Research in Technology and Engineering (ICIRTE-2017) 26 & 27 Oct 2017. Organised by PVPPCOE, Mumbai.
2. Reviewer, Conference on Technologies for Future Cities 2021 (CTFC 2021) on 8-9 October 2021, Organized by Pillai College of Engineering, New Panvel.
3. Reviewer, 2nd International Conference on..Advances in Science & Technology (ICAST 2019)" organized by K.J.Somaiya IEIT, Mumbai.
4. Reviewer, Journal of Engineering and Technological Sciences.
5. Reviewer Invitation from Conscientia Beam Journals
6. Reviewer, Equinox 2013, 2015, Equinox 2019, 2021, 2022, organized by TEC, Navi Mumbai.

Major Subjects:

- ☐ Power Electronics
- ☐ CCN
- ☐ Microwave
- ☐ Optical fiber communication
- ☐ Signals and System
- ☐ ENAS
- ☐ PCS
- ☐ IA
- ☐ Wireless Communication
- ☐ Mobile Communication
- ☐ ANT

Citation Analysis:

145 citations (h-index 6 and i10-index 4) in google scholar

<https://scholar.google.com/citations?user=o0BhR3sAAAAJ&hl=en&oi=ao>

List of Publication:

International Journal Publications:

- Rishabh R. Maurya, Anoshka M. Maurya, Sandali S. Naik, Prof. Varsha A. Pande, and Dr. Balaji G. Hogade, "Density-Based Traffic Signal Control Using Image Processing," YMER, Volume 22, issue 3, March 23.
- Asha P. Ghodake, B. G. Hogade "ISM band 2.4 GHz wearable textile antenna for glucose level monitoring" International Journal of Electrical & Electronics Research, Vol -11, Issue -1, Feb 2023.
- Sujata R.Kadu, Balaji G. Hogade, Imdad Rizvi," Detection of urban tree canopy from very high resolution imagery using an object based classification", International Journal of Electrical and Computer Engineering (IJECE) Vol. 12, No. 4, August 2022, pp. 3665~3673 ISSN: 2088-8708, DOI: 10.11591/ijece.v12i4.pp3665-3673.
- Asha P. Ghodake, B. G. Hogade, "SAR, Sweat and Bending Analysis for the ISM Band Wearable Jeans Antenna" International Journal of Microwave and Optical Technology, Vol-18, N0-1, pp-14-22, Jan 2022.
- Shailesh R. Sakpal, Dr. Balaji G. Hogade, "Machine Learning for Enhanced and Improved Algorithms Selection Basis on Performance in the Application of Image Watermarking" in 'International Journal of Innovative Research in Computer and Communication Engineering', 185, pp 8910-8917, ISSN 2320-9801, 2021.
- Shailesh R. Sakpal, Dr. Balaji G. Hogade, "Entropy Based Adaptive Digital Image Watermarking Technique", 'Open Access International Journal of Sciences & Engineering', 15, pp 100-105, ISSN 2456-3293, 2021.
- Prasad Kulkarni, B. G. Hogade, Vidula Kulkarni, "ASIC Design of Butterfly Unit based on Non-redundant and Redundant Algorithm," Iranian Journal of Electrical and Electronics Engineering, vol.17, no.1, Mar. 2021, p.p.1809-1816.
- Prasad Kulkarni, B. G. Hogade, Vidula Kulkarni and Varsha Turkar, "ASIC Design of Radix-2, 8-Point FFT Processor," Journal of scientific and Industrial Research, vol.80, no.3, Mar. 2021, p.p.230-238.
- Asha P. Ghodake, B. G. Hogade, "A Review of Wearable Antenna," International Journal of Electronics Engineering (ISSN: 0973-7383) Volume 12 • Issue 1 pp. 13-18 Jan 2020-June 2020
- Suman P.Wadkar, B.G.Hogade, Rinkee C., Girish Kumar, "Broadband and High Gain Stacked Microstrip Antenna Array", in *Microwave and Optical Technology Letters*, Feb 2019 DOI:10.1002/mop.31813
- Shailesh R. Sakpal, Dr. Balaji G. Hogade, "Adaptive Digital Image Watermarking Technique through Colour Features and Arnold Transform in Wavelet Domain", Paper is published in Springer publication 'Advances in Intelligent Systems &

Computing (AISC), 81, pp 799-807, 2019'.

- Sujata R. Kadu, Balaji G. Hogade, Imdad Rizvi, "Extraction of Urban Tree Canopy using Multiresolution Segmentation of Very High Resolution Satellite Imagery", *Journal of Advanced Research in Dynamical & Control Systems*, ISSN: 1943-023X, Vol. 11, Special Issue-08, July 2019 (SCOPUS index)
- Sujata R. Kadu, Balaji G. Hogade, Imdad Rizvi, "Detection of Tree Crown from satellite Imagery using Object-Based Image Analysis", *International Journal of Engineering and Advanced Technology*, ISSN: 2277-3878, Volume-8, Issue-2s10, September 2019 (SCOPUS index).
- Mahadu A. Trimukhe, Balaji G. Hogade "Compact Ultra-wideband Antenna with Triple Band Notch Characteristics using EBG structures," *Progress in Electromagnetic Research C*, vol. 93, pp. 65-77, June 2019. (Scopus Index)
- Mahadu A. Trimukhe, Balaji G. Hogade "Design of the Compact Ultra-Wideband (UWB) Antenna Bandwidth Optimization using Particle Swarm Optimization Algorithm," *Iranian Journal of Electrical & Electronic Engineering (Iran)*, vol. 15, no.2, pp. 195-202, June 2019. (Scopus Index).
- Mahadu A. Trimukhe, Balaji G. Hogade "Design and Simulation of effects corresponding to Reduced conducting area using Slotted Meandering Line for Compact Ultra - Wideband (UWB) Antenna," *Journal of Communication (USA)*, vol. 14, no. 4, pp. 318-323, April 2019. (Scopus Index)
- Mahadu A. Trimukhe and Balaji G. Hogade Compact UWB Antenna with Tunable Band-Notch Characteristics Using Varactor Diode, *Progress In Electromagnetics Research C*, Vol. 97, 15–28, 2019.
- Suman P. Wadkar, B.G. Hogade, Hemant Kumar, Girish Kumar, "Normal Mode Helical Antenna On Small Circular Ground Plane", in *IETE Journal of Research*, August 2018.
- Santosh V Vishwakarma, B. G. Hogade, "Applying DCT AND DWT Combination in Image Segmentation for Detection of Benign and Malignant Tumors, *International Journal of Creative Research Thoughts IJCRT* , Volume 6, Issue 2 April 2018, ISSN: 2320-2882, PP 1283 1286.
- Santosh Virendra Vishwakarma, B. G. Hogade, "Image Segmentation for Detection of Benign and Malignant Tumors by Using DCT and DWT Combination," *International Journal on Future Revolution in Computer Science & Communication Engineering*, ISSN: 2454-4248 Volume: 4 Issue: 4 195 – 198 IJFRCSE, April 2018, PP 195 198.
- Tejas Virendra Ghavale, Mohmad Farhan, B. G. Hogade, "Design & realization of tri-band monopole antenna for wireless application," 2017 *International Conference on Computation of Power, Energy Information and Commuincation (ICCPEIC)*, *IEEE Xplore*: 15 February 2018
- Suman P. Wadkar, S. M. Rathod, Hemant Kumar, Girish Kumar and B. G. Hogade, "Effect of variation of height on performance of normal mode helical antenna," 2017 *IEEE Applied Electromagnetics Conference (AEMC)*, *IEEE Xplore*: 29 March 2018.
- Suman P. Wadkar, Girish Kumar, Rinkee Chopra, B. G. Hogade, "Broadband and High

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- Shaikh Reshma, Dr. B. G Hogade, “Enhanced Gain Microstrip Patch Antenna for Wimax Applications” *International Journal of Advanced Engineering, Management and Science (IJAEMS)* [Vol-3, Issue-4, Apr- 2017], PP 397-400.
- Prasad Kulkarni, Dr. B.G. Hogade, Vidula Kulkarni, “Simulation of Digital Signal Processor – FFT for Communication System Applications” , *ACM Digital Library, Proceeding ICTCS 16 Proceeding of the second International Conference on Information and Communication Technology for Competitive Strategies*, Article No. 109, ACM. New York, NY, USA 2016.
- Parag Pimple, B. G. Hogade, “Optimizing Routing Paths using Path Quality and Distance for Zigbee based Wireless Networks” *International Journal of Advance Research in Engineering Science and Technology (IJAREST)*, Volume 03 Issue 05, May-2016.
- Riddhi Shinde, B. G. Hogade, Shruti Patil, “PAPR Reduction Employing Sub block conversion technique using Modified SLM Approach” *International Research Journal of Engineering and Technology (IRJET)*, Volume: 03 Issue: 04, Apr-2016.
- S. S. Dubhele, B. G. Hogade, “Review on different E shaped microstrip antennas for better performance” *International Journal of Science, Engineering and Technology Research (IJSETR)*, Volume 5, Issue 3, March 2016.
- Trupti Shinde, L. K. Ragha, B. G. Hogade, “An Internet Connected System of Power Monitoring and Control for Better Energy Efficiency” *IJIRSET*, Vol. 5, Issue 1, Januray 2016.
- Ms. Shraddha R. Thakare.1, Dr. Balaji G. Hogade, “Androgenic Hair Pattern: A New Approach for Identifying Criminals and Victim” *Imperial Journal of Interdisciplinary Research (IJIR)* Vol-2, Issue-12, 2016, Page 1641-1647.
- Parag Pimple, .B. G. Hogade, Ravish R. Singh, Atul Sankhe, “Shortcut Path Tress for Zigbee based Wireless Network” *Journal of Engineering Research and Applications*, Vol. 5, Issue 6, (Part -2) June 2015, pp.109-111.
- Sheetal Watkar, B. G. Hogade, “Enhancing Life-Time of Wireless Sensor Networks Using Improved GSTEB Routing Protocol, *International Journal of Advance Research in Engineering Science and Technology (IJAREST)*, Volume 03 Issue 06, June-2016.
- Saleem P. Choudhary, Balaji G. Hogade, Ravish R. Singh, “Automatic Energy Saving System for Street Lighting Using Zigbee Network” *IJREAT International Journal of Research in Engineering & Advanced Technology*, Volume 3, Issue 4, Aug-Sept, 2015.
- Sheetal Watkar, Prof. B.G.Hogade ,Prof.Hemangi Satam, “Review Paper of Energy Efficient Protocol in Wireless Sensor Network” *Intl Journal of Engineering Research and Applications*, *Int. Journal of Engineering Research and Applications*, Volume , Issue , (Part 3) , March 2015.
- Vidula Kulkarni , B. G. Hogade, Prasad A Kulkarni, “Design and Simulation of Digital Signal Processor for Ultra Wide Band Communication System Application” *Abhinav Publication Abhinav International Monthly Refereed Journal of Research in Management*

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- Saleem P. Choudhary, Dr. Balaji G. Hogade, Dr. Ravish R. Singh ‘Automatic Energy Saving System for Street Lighting Using Zigbee Network’ *IJEMR*, Volume 5, Issue 6, December, 2015, pg.424-428.
- Riddhi.R.Shinde, B. G. Hogade, Shruti Patil, “Review Paper of PAPR Reduction Technique *PAPR reduction in OFDM*” *International Journal of Engineering Development and Research*, Volume 3, Issue 2, PP 11-15.
- Mohd Farhan, Sandeep Dhende, Balaji G. Hogade, “Design and Implementation of Printed Monopole Antenna for ISM Band” *International Journal of Engineering Sciences & Research Technology*, PP 632-635, July 2014.
- Trupti A. Bhosale, B. G. Hogade “Power Theft Detection and Monitoring using GPRS Technology” *International Journal of Infinite Innovations in Technology, IJIIT*, Volume-III, Issue-I, 2013-2014, Paper-13, PP 1 to 7, Jul 14.
- Sandip G. Dhende, Mohd Farhan , Balaji G. Hogade, “Design and Implement Printed Rectangular Monopole Broadband Antenna for Wireless Networks” *International Journal of Research in Advent Technology (IJRAT)* Volume 2, Issue 7, pp 89-91, July 2014.
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- Mohd Farhan, Rohit Sharma, Balaji G. Hogade “Implementation of ISM band antenna using printed monopole,” *International Journal Advent Technology*, Volume 2, Issue 1, pp16-20, January 2014.
- Balaji. G. Hogade, Shrikant. K. Bodhe, Priyanka Ratna Nalam “Improved CMA: A Beamforming Algorithms for Wireless System using Smart Antenna,” *International Journal of Computer Science and Mobile Applications*, Vol.1 Issue. 5, pp. 84-96, November- 2013.
- Balaji. G. Hogade, Shrikant. K. Bodhe, Priyanka Ratna Nalam, “Improvement in convergence rate and stability: ICMA for Smart antenna system,” *International Journal of Research in Information Technology*, Volume 1, Issue 11, pp. 514-523, November, 2013.
- Prasad R. Dalvi, B. G. Hogade, “Performance analysis of sage algorithm with different parameters of incoming wavefronts”, *International Journal of Advance Research in Science and Engineering IJARSE*, Vol. No.2, Issue No.8, pp 121-129 August 2013.

- Trupti A. Bhosale, B. G. Hogade, “Design and Implementation of Power Theft Detection and Monitoring using wireless Technology”, *International Journal of Infinite Innovations in Technology, IJIT*, Volume 1, Issue IV, Pages 1-7, 2013.
- Balaji. G. Hogade, Shrikant. K. Bodhe, Vrishali M. Patil “Effect of Modulation Schemes on Performance of OFDM based Wireless Network using Smart Antenna”, *International Journal on Computer Science and Engineering*, Vol. 4 No. 08 pp 1480-1492, Aug 2012.
- Rajashri Patil, Balaji Hogade, “On Line Real Time Health Monitoring of ICU Patients using ARM7”, *International Journal of Computer Science and Network (IJCSN)*, Volume 1, Issue 3, June 2012.
- B. G. Hogade, Jyoti Patil, Shrikant K. Bodhe “Analysis of Improved and Traditional LMS Beamforming Algorithm for Smart Antenna”, *International Journal of Engineering Research and Applications (IJERA)* Vol. 2, Issue 3, PP 1816-1820, May-Jun 2012.
- B. G. Hogade, Sheetal Wadhe, Shrikant K. Bodhe “Mitigating the Effect of CCI and Multipath in Mobile Communication using Smart Antenna,” *International Journal of Engineering Research and Applications (IJERA)* pp 366-370, 30 Mar’12.
- R. B. Waghmare, B. G. Hogade, S. K. Bodhe “MIMO the Next Generation Wireless Communication System,” (IJGTI) *International Journal of Global Technology Initiatives*, Issue 1, pp D38-D42, March 29, 2012.
- B. G. Hogade, Jyoti Patil, Shrikant K. Bodhe “Performance Improvement in Beamforming of Smart Antenna by using LMS algorithm,” *International Journal of Computer Applications (IJCA)*, PP 31-35, January 28, 2012.
- Balaji G. Hogade, Shrikant K. Bodhe, “Effect of Wideband Signals on Smart Antenna,” (IJoAT) *International Journal of Advancements in Technology*, Vol.3 No.1, pp 55-63, January 2012.
- Priyadarshinee Adhikari, Neeta Gargote, Jyothi Digge, and B.G. Hogade, “Abrupt Scene Change Detection” *World Academy of Science, Engineering and Technology International Journal of Electronics and Communication Engineering* Vol: 2, No: 6, 2008, *International Scholarly and Scientific Research & Innovation* 2(6) 2008, PP 1204-1209.

Conferences and Workshops Publications:

International Conference

- Asha P. Ghodake, B. G. Hogade “Effect of ground plane dimensions on the performance of wearable jeans antenna” IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation 21 Dec 2022.
- Asha P. Ghodake, B. G. Hogade “Textile Antenna –Structure, Material and Applications” IEEE International Conference on Electronics and Renewable Systems (ICEARS), 13 April 2022.
- Mahadu A. Trimukhe, Balaji G. Hogade “A Compact Ultra-wideband (UWB) Antenna

with Dual Band-Notched Characteristic-based on Small Size Electromagnetic Band-Gap (EBG) Structure,” published in *Springer International Conference in Wireless Communication, 2020*, The proceedings is published on Springer digital library under series "Lecture Notes on Data Engineering and Communications Technologies“

- Mahadu A. Trimukhe, Balaji G. Hogade “Gain Enhancement of Compact UWB Antenna Using Planar Reflector,” *4th IEEE International Conference on Communication and Electronics Systems, 17th - 19th July 2019*. (Scopus Index)
- Mahadu A. Trimukhe, Balaji G. Hogade “Miniature low profile UWB Antenna with defective ground plane,” *2nd IEEE International Conference on Inventive Communication and Computational Technologies*, pp. 111-114, 20th - 21st April 2018. (Scopus Index).
- Mahadu A. Trimukhe, Balaji G. Hogade, “Miniature low profile UWB antenna with defective ground plane” *2nd International Conference on Inventive Communication and Computational Technologies (ICICCT 2018) conference proceedings and IEEE Xplore*.
- Prasad Kulkarni, B. G. Hogade, Vidula Kulkarni, “Designing of Radix-2 Butterfly for Digital Signal Processor for FFT Computation,” *Information and Communication Technology for Intelligent Systems, Springer Conference, vol.2, Dec. 2018, p.p.603-610*.
- Prasad Kulkarni, B. G. Hogade, Vidula Kulkarni, “32 bit Digital Signal Processor for Communication System Applications,” *Proceedings of fourth International Conference on Engineering Confluence and Inauguration of Lotfi Zadeh Center of Excellence in Health Science And Technology (LZCODE)EQUINOX 2018, Sept. 2018, p.p.47-51*.
- Sujata R .Kadu, Balaji G. Hogade, Imdad Rizvi, "Extraction of Vegetation Using Modified K-means Clustering", in *Information and Communication Technology for Intelligent Systems, India, 2018, ch. 37, Springer Nature Switzerland AG, pp. 391-398 (SCOPUS index)*.
- Prasad Kulkarni Dr. B.G. Hogade and, Vidula Kulkarni, “ Designing of Digital Signal Processor for FFT computation”, *Proceedings of Equinox’17 International Conference on Engineering Confluence, 21st September to 23rd September 2017*.
- Sujata R. Kadu, Balaji G. Hogade, Imdad Rizvi, "Urban Tree Canopy Detection Using Object-Based Image Analysis Approach for High Resolution Satellite Imagery", in *Techno-Societal 2016, India, Springer Nature Switzerland AG, 2016, ch. 27, pp.275-281*.
- Suman P.Wadkar, S.M.Rathod, Hemant Kumar, Girish Kumar, B.G.Hogade, „Normal Mode Helical Antenna at 1.8 GHz with Small Circular Ground Plane,, at *International Symposium on Antennas and Propagation 2016, December 2016, Link to iee Xplore-10.1109/APSYP.2016.7929145*.
- Mohmad farhan, Sandeep Dhende, B. G. Hogade, “Printed monopole antenna array: A technique to improve directive gain” *IEEE Xplore: 24 November, 2016 International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT)*.

- Suman P.Wadkar, B.G.Hogade, Rinkee C, Girish Kumar, "Broadband and High Gain Stacked Antennas For Wireless Communication Systems", at *IEEE Indian Antenna week 2017*, May 2017.
- Suman P.Wadkar, S.M.Rathod, Girish Kumar, B.G.Hogade, "Effect of Variation of Height on Performance of Normal Mode Helical Antenna", *IEEE Applied Electromagnetics Conference-2017*, 22nd December 2017
- Yogita Gavade, B.G. Hogade, Contest based image Retrival using texture and colour features” Proceedings of *Equinox'17 International Conference on Engineering Confluence*, 21st September to 23rd September 2017.
- Prasad Kulkarni, B. G. Hogade, Vidula Kulkarni, “Simulation of Digital Signal ProcessorFFT for Communication System Applications,” Proceedings of the Second International Conference on Information and Communication Technology for Competitive Strategies, ACM Conference, article no.109, Mar. 2016
- Reshma Shaikh, B. G. Hogade, “Gain Enhancement with air Gap and parasitic Path for Wi-MAX Applications” *Proceedings of Equinox'17 International Conference on Engineering Confluence* held on 21st September to 23rd September 2017.
- Chhaya Singh, B. G. Hogade, “Design and Simulation of an Adaptive Beamforming Antenna for Radio Technology” *International Conference on Emerging Trends in Technology And its Application (ICETTA)* on 7th and 8th March 2014 at Yadavrao Tasgaonkar Institute of Engineering and Management, Karjat, Mumbai.
- Chhaya Singh, B. G. Hogade, “Design and Simulation of an Adaptive Smart Antenna for Radio Technology” *International Conference on Engineering Confluence EQUINOX* on 30th September 2014 at Terna Engineering College, Nerul, Navi Mumbai.
- Vidula Kulkarni , B. G. Hogade, Mr. Prasad A Kulkarni “Reconfigurable DSP Processor for Ultra Wide Band Communication System Application” *International Conference on Engineering Confluence EQUINOX 14*, at Terna Engineering College, Nerul, Navi Mumbai, 30th September 2014.
- Sagar Dhavale, B. G. Hogade, “Node authentication technique for wireless sensor network security” *International Conference on Engineering Confluence EQUINOX 14*, at Terna Engineering College, Nerul, Navi Mumbai, 30th September 2014.
- Pratibha Nikam, B. G. Hogade “An efficient data communication using conventional codes,” *International conference on recent trends in Engineering sciences*, ICRTES 13, SPVRYAN INC, ELSEVIER, Nashik, India, 22-23 Nov. 13.
- B. G. Hogade, N. Priyanka Ratna, “A survey paper on performance improvement of Wi-MAX system using smart antenna” *International Conference on Advancements in Computing Sciences, Information Techniques and Emerging E Learning Technologies*, (ACSITEET), JNU, New Delhi, 5-6 Oct 2013.

- Shailesh D. Nandgaonkar, B. G. Hogade, "Beamforming Techniques for Smart Antenna using Rectangular Array Structure" *International Conference on Advances Communication and Computing Technologies*, PVPPCOE and IEEE August 2013.
- Girish Mulke, B. G. Hogade "On line Voting System Secured by Biometric Sensor Using Stegnography" *International Conference on New Development and Challenges in Engineering, Technology and Management*, Yadavrao Tasgaonkar COE, Karjat Mumbai, 22nd March 2012.
- B. G. Hogade, Jyoti Chougale-Patil, Shrikant K. Bodhe "Application of Smart Antenna for Wireless Ad-Hoc Networks", *International Conference on New Development and Challenges in Engineering, Technology and Management*, Yadavrao Tasgaonkar COE, Karjat Mumbai, 22nd March 2012.
- B. G. Hogade, Sheetal Wadhe, Shrikant K. Bodhe, "Smart Antenna in Mobile Communication," *International Conference on New Development and Challenges in Engineering, Technology and Management*, Yadavrao Tasgaonkar COE, Karjat Mumbai on 22nd March 2012.
- Prasad R. Dalvi, B. G. Hogade, "Direction Of Arrival Estimation Beam Forming for Smart Antenna using MUSIC Algorithm For MIMO Technology," *International Conference on New Development and Challenges in Engineering, Technology And Management*, Yadavrao Tasgaonkar COE, Karjat Mumbai, 22nd March 2012.
- R. B. Waghmare, B. G. Hogade, S. K. Bodhe, "Bit Error Performance of Coded MIMO Systems Using MMSE," *International Conference on New Development and Challenges in Engineering, Technology and Management*, Yadavrao Tasgaonkar COE, Karjat Mumbai on 22nd March 2012.
- B. G. Hogade, Jyoti Chougale-Patil, Shrikant K. Bodhe, "Improved LMS Adaptive Algorithm for Beam Forming in Smart Antenna," *International conference on microwave, antenna propagation and remote sensing (ICMARS) Conference*, Jodhpur, (Rajasthan), 7th-10th December, 2011.
- Ashwini Karande, B. G. Hogade "Adaptive Antenna: Review," *International conference and workshop on emerging trends in technology 2011 (ICWET)* at Thakur COE & T, acm, IJCA, Mumbai, 25th & 26th Feb 2011.
- Sudhir Tathwani, B. G. Hogade, S. K. Bodhe "Performance Evaluation of Smart Antenna Systems using Beamforming Schemes in WCDMA Networks", *International conference on Science, Engineering and Spirituality (ICES)* 10 IEEE, CSI AND S.E.S COE, Navalnagar, Dhule, Maharashtra, April 1st & 2nd 2010.
- Alka Khade, B. G. Hogade, V. B. Gaikwad, "Secret communication via image hiding in image by pixel value differencing" *International Conference and Workshop on Recent Trends in Technology*, Thakur College of Engineering. pp 437-438, [Published in ACM

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National Conference

Alka Khade, B. G. Hogade, “Stenography: Hiding data within the data”, *National Conference on Recent Trends in Wired and Wireless Communications* at SIES Graduate School of Technology, pp 101-104, 13-14 March 2008.

Seema Korgaonkar, Sudhir Savarkar, Balaji Hogade, “Raw Images Secured Stegnography” in Proceedings of the *National Conference on Recent Advances in Computers and Communications*, VIT, Wadala, Mumbai, September 29-30, 2008.

Shripad Kulkarni, B. G. Hogade, S. K. Bodhe, “Performance Analysis & comparison Of MIMO-OFDM V-blast/map coding & space time block coding using 4 transmit antennas,” *National Conference on Information and Communication, Technology Advancements and Applications Technology(NCICT 2009)*, MPSTME NMIMS University, March 2009.

S. B. Gaikwad, B. G. Hogade, Applications of wavelet data compression for congestion control in wireless network, *Asia-pacific regional conference in ICTM-2010, National Conference*, NMIMS Vile Parle Mumbai, 5-6 March, 2010.

Rupali R Yawale, B. G. Hogade, “An Ideal Approach of Face Recognition” *Asia-pacific regional conference in ICTM-2012, National Conference*, NMIMS Vile Parle Mumbai, 5-6 March, 2010.

Rupali R Yawale, B. G. Hogade, “A Face Identification System” *National Conference on Emerging Trends in Electronics Engineering and computing*, J. D. College of Engineering Nagpur, 9-10 Feb 2010.

Sudhir Tathwani, B. G. Hogade, S. K. Bodhe “Assessing the Integration of Smart Antenna Systems in WCDMA Networks,” *National conference on Pervasive computing*, (NCPC-2010), at Sinhagad COE, IEEE, Pune, April 9-10, 2010.

R. B. Waghmare, D. S. Kurule, B. G. Hogade “ The study of OFDM as Modulation Technique for Wireless Communication Systems,” *2nd National Conference on Nascent Trends in Information and Communication Technology*, TEC, 17th and 18th September 2010.

Ashwini Karande, B. G. Hogade, “Adaptive Antenna,” *National conference on Emerging Trends In engineering and Technology*, NIIT and L. R. Tiwari COE, Mumbai, 11th March 2011.

R. B. Waghmare, D. S. Kurule, B. G. Hogade “The Bit Error Performance of Coded MIMO System using MMSE,” *National Level Conference on Emerging Trends in Technology (Vision)*, BVIT, Navi Mumbai, March, 2011.

Rajashri Patil, B. G. Hogade, “An Overview on Principles of MIMO,” *3rd National Conference on Trends in Information and Communication Technology*, TEC, 27th – 29th Sept 2011.

Vrishali M. Patil, B. G. Hogade, “Applicability of Smart Antenna for Wireless Network,” *National Conference on Trends in Information and Communication Technology (NASCENT)*, TEC, 27th – 29th Sept 2011.

B. G. Hogade, Waghmare R. B., Shrikant K. Bodhe, “Performance Analysis of Coded MIMO Systems Using MMSE,” *3rd National Conference on Trends in Information and Communication Technology (NASCENT)*, TEC, 27th – 29th Sept 2011.

B. G. Hogade, Jyoti Patil, Shrikant K. Bodhe, “Improved LMS Algorithm for smart antenna,” *National Conference on Communication, Antenna and Signal Processing (CASP) Cynosure–2011* on December 23 – 24, 2011.

B.G. Hogade, Vrishali M. Patil, Shrikant K. Bodhe “OFDM based Smart Antenna using STTC Code for Wireless Communication,” *National Conference on Recent Advancement in Engineering (NCRAE12)*, 22-23 June, 2012.

Milind Paraye, B. G. Hogade, “Multi-frequency Bioelectrical impedance Measurement System,” *National level Conference and Technical paper presentation*, LTCOE, Navi Mumbai, 13 October 2012.

S. D. Nandgaonkar, B. G. Hogade, S. K. Bodhe, “ Review of Beamforming techniques using Rectangular array Theory,” *National Conference on NASCENT Trends in Information & Communication Technologies*, TEC, 2013.

Chhaya singh, B. G. Hogade “Implementation of an Adaptive Smart Antenna System” *NSCFET 2014 National Level Students’ Conference on Frontiers in Engineering and Technology Applications*, RAIT, Navi Mumbai, Pp 31 to 33, 5th, 6th April 2014.

Research and Scholarly Contributions:

- **Ph.D. Research:** Smart antenna for wideband wireless applications
- **M. E. Research:** Resonant power supply

Funding Received

“Design and Simulation of Ultra-wideband (UWB) antenna using slotted meandering line and reducing the conducting area approach” sanctioned 20000/- minor research grant from University of Mumbai

Software Tools:

1. MATLAB
2. SCILAB
3. NS2

Professional Association:

□ Indian Society of Technical Education (ISTE) - Life Member

Experience:

□ 32 years Teaching

Responsibilities Handled:**Responsibilities / Achievements:**

Head of Electronics Engineering Department

Dean academics

Dean P G

Ombudsman

PG admission committee

- Recognized Ph. D. Guide, UOM, in Electronics and Telecommunication.
- Recognized Ph. D. Guide, UOM, in Electronics Engineering.
- Approved PG Teacher, UOM, in EXTC Since 2005
- Approved PG Teacher, UOM, in Electronics Engineering since 2010
- Member, BOS [Electronics Engineering 2009-2012], UOM
- Member, BOS [Electrical Engineering 2005-2010], UOM
- Convener for the course PPT (Printing and Packaging Technology) syllabus design, syllabus setting, paper setting, SE to BE, UOM, from 2006 to 2011.
- Member LIC Committee UOM, 2006, 2007, 2008, 2010 and 2014.
- CAP Coordinator, UOM, 2007, 08, 09, 2011.
- Panel member of USSC Expert Committee UOM (ETRX , EXTC)
- JCC FH 2013 UOM
- Convener, First International Conference, equinox 2014, organized by Terna Engineering College, Nerul, Navi Mumbai.
- CC, UOM, TEC, Nerul.
- Syllabus setting PG and UG Electronics Engineering, University of Mumbai.
- International conference Reviewer
- International Conference Chairperson.
- Guest speaker at SPIT for workshop on Antennas.
- Member result moderation committee UOM.

Talks/Guest Lectures Delivered:

1. Resource person for ISTE Approved five days Faculty Development Program, “Research Methodology, Research Proposal writing and hands on Latex” from 27th June to 1st July 2018 at Padmabhushan Vasantdada Patil Pratishthan’s College of Engineering.
2. Resource person for the Workshop of one Week Short Term Training Program “ADVANCES IN RF COMMUNICATION AND ANTENNA DESIGN” (Hands on Practice) faculty development program on 20 th June, 2017.

3. SESSION CHAIR/JUDGE:

1. 6th International Conference “Innovation and Research on Technology and Engineering”, 2019. Organised by PVPPCOE Mumbai
2. 5th International conference on Innovation and research technology and Engineering, December 2018, Organised by PVPPCOE Mumbai
3. 4th International Conference on "**Innovation & Research in Technology & Engineering**" Oct 2017, Organised by PVPPCOE Mumbai
4. Equinox 2017,2019,2021Organised by TEC

Declaration

I hereby declare that the foregoing information is correct and complete to the best of my knowledge.

Dr. Balaji G. Hogade

Place: Navi Mumbai