DR G. S. BIRADAR
PROFESSOR

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Professional Summary:

A dedicated educator with 33 years of teaching experience fostering students learning and promoting an enriching classroom environment. Proven expertise in curriculum development classroom management, and student engagement.

Teaching Experience:

2010- Till date	Professor in Dept., of Electronics and Communication Engg., teaching undergraduate, post graduate students and supervising Ph.D research scholars.
2006-2010	Associate Professor in Dept., of Electronics and Communication Engg.,
2002-2005	Selection Grade Lecturer in Dept., of Electronics and Communication Engg., teaching undergraduate, post graduate students, supervising projects.
1998-2002	Senior Grade Lecturer in Dept., of Electronics and Communication Engg., teaching undergraduate students.
1992-1998	Lecturer in Dept., of Electronics and Communication Engg., teaching undergraduate students.

Education Qualification:

2005-2010	Ph.D from IIT Bombay, Mumbai from Electrical Engg., dept Area of specialization: Wireless communication
2000-2002	M.Tech., from IIT Khargapur Dept., of Electronics and Communication Engg., (CGPA=8.0) Area of specialization: Telecommunication Systems Engg.,
1986-1990	B.E (Electronics and Communication Engg.,) from Gulbarga University Gulbarga (70.32%)

Research Experience:

2010- Till date	Actively involved in research work and supervising Ph.D research scholars. Guided 7 PhDs students and presently 3 research scholars are working under me.
2005-2010	Full time research scholar at IIT Bombay, Mumbai

Research Publications:

Published 20 international journal papers and 33 international/national conference papers in IEEE, Elsevier and Scopus indexed journals

Awards:

I am recipient of best technical paper award of "Shri Hari Vallabhdas Chunnilal Shah" research endowment award for the year 2010 from Sardar patel University, Anand Gujarat

Other Professional Work:

- Head of the Dept., for a period of 2 years
- I am reviewer for many leading internal journal/conferences
- Chairman of Board of Examiner/ Board of Studies and member of Board of studies/ Board of examiners.
- NBA coordinator

Professional Body Membership:

Life member of ISTE and IEI

Area of Specialization:

Wireless communication, Signal processing, machine learning, Cloud computing, Wireless sensor networks

List of Publications:

International Journal Papers:

1. G.S.Biradar, S.N.Merchant, U.B.Desai, "Frequency and Time Hopping PPM UWB Multiple Access Communication Scheme", International Journal of Communication (JCM), Vol I, Feb. 2009.

2. G.S. Biradar, S.N. Merchant, U.B.Desai, ``Chip Equalized Adaptive Rake Receiver for DS-CDMA UWB Systems,'' IETE Journal of Research, vol. 56, no. 2, pp. 94-101, Mar-Apr. 2010

3. Lata, G.S.Biradar and Shilpa Biradar, "Optimal routing and data aggregation for maximizing the network lifetime of wireless sensors", International journal of advanced engineering sciences and technology, vol. 10, no.1, pp.104-110.

4. G.S.Biradar, S.N.Merchant and U.B.Desai, "Performance of constrained blind adaptive DS-CDMA UWB multiuser detector in multipath channel with IEEE 802.11a interference" Int, J. Ultra wideband Communication and systems, Vol.2, No.3, 2012

5. Jayashree Agrakhed, G.S. Biradar and V.D. Mytri " Prioritzed region scheduling based QOS routing over WMSN" International Journal of Information Technology and Knowledge Management July-December 2012, Volume 5, No. 2, pp. 413-420

6. Vidya Honguntikar and G. S. Biradar, "Bio-inspired Energy Efficient Collision Free Sleep Scheduled Transmission in Wireless Sensor Network", International journal of Engineering Research & Technology(IJERT), vol. 5, Issue 5, May-2016, ISSN: 2278-0181, pp. 557-560.

7. Vidya Honguntikar and G. S. Biradar, "Energy Efficient Scheduling in Wireless Sensor Networks Based on Residual Energy Levels of Sensor Nodes", International Journal of Engineering & technology (IJET), Science Publishing Corporation.

8. Vidya Honguntikar, G. S. Biradar, "Frog-Based Routing Algorithm to Enhance the Network Lifetime of Wireless Sensor Networks", International Journal of Computer Network and Information Security, 2017, vol. 9, 8, 9-15 Published Online August 2017 in MECS (http://www.mecs-press.org/) DOI: 10.5815/ijcnis.2017.08.02.

9. Vidya Honguntikar and G. S. Biradar, "Energy Efficient Scheduling in Wireless Sensor Networks Based on Residual Energy Levels of Sensor Nodes", International Journal of Creative Research Thoughts , (IJCRT), ISSN:2320-2882 Volume 9, Issue 1, 2701.2021.

10. Sridhara K, G S Biradar, "Analysis and Design of 6T and 8T SRAM cell using LECTOR approach," International Journal of Advanced Science and Technology, Vol. 29, No. 6s, (2020), pp. 2175-2181, April 2020.

11. Sridhara K, G S Biradar, "Performance Analysis and Design of 6T SRAM Cell Using Different Circuit Techniques," International Journal of Advanced Science and Technology, Vol. 29, No. 7s, (2020), pp. 3125-3132, May 2020.

12 Sridhara K, G.S.Biradar, "Leakage Reduction and Analysis of CMOS D FF," International Journal of Emerging Technology in Computer Science and Electronics (IJETCSE), Vol. 23, Issue 6, 2016.

13 Sridhara K, G.S.Biradar, "Leakage Reduction Technique and Analysis of CMOS D Flip Flop," International Journal of VLSI design & Communication Systems (VLSICS), Vol. 7, No.14, August 2016.

14 Vishalakshi, G.S. Biradar and Vidya Honguntikar " A Survey on PAPR Reduction Techniques for Multipath Fading Channel", Journal of Fundamental and Comparative Research" Vol. VIII, No. 1(XXXIV):2022,ISSN:2277-7067, 2022

15 Vishalakshi, G.S. Biradar "A Taxonomy on Power Optimization Techniques for Fifth generation heterogeneous Non-Orthogonal Multiple Access Networks", International Journal of Electrical and Computer Engineering (IJECE) for Vol 14, No 2 April-2024.(Scopus indexed)

16 Blockchain-integrated optimized cryptographic framework for securing cloud data, Rekha Gaitond *, Gangadhar S. Biradar, Sujata Terdal, Knowledge-Based Systems, Volume 324, June 2025, 113830, https://doi.org/10.1016/j.knosys.2025.113830

17 Rekha Gaitond, Dr. Gangadhar S. Biradar, Dr. Shubhangi D.C. "A-GGCO: A Hybrid Adaptive Metaheuristic for Optimization of Paillier Homomorphic Encryption Parameters". Journal of Engineering and Technology Management, 78, 408-439 (2025). https://doi.org/10.5281/zenodo.17580526

18 A Novel Hybrid Optimization Technique Using Greylag Goose Optimization and Crayfish Optimization, https://doi.org/10.20944/preprints202411.0919.v1

19 Rekha Gaitond, Dr. Gangadhar S. Biradar. "PHEO: Optimizing Paillier Homomorphic Encryption Parameters Using Hybrid A-GGCO for Secure Cloud Applications". Journal of Cyber Security, 7(11), 1-15(2025). https://doi.org/10.5281/zenodo.17550857

20 Hybrid A-GGCO: An Adaptive Metaheuristic for robust and efficient optimization of multimodal and constrained problems, Rekha Gaitond*, Dr. Gangadhar S. Biradar, International Journal on Smart Sensing and Intelligent Systems. (accepted-Q3)

International Conference Papers:

1 G.S.Biradar and R.V.Rajakumar, "A recursive least squares blind multiuser detector for wireless systems", IEEE TENCON, Beijing China, Oct. 2002.

2 N.V.Marathe, G.S.Biradar, S.N. Merchant, U.B.Desai, "An Comprehensive Call Management Strategy for Congestion Control in Cellular Networks" ,IEEE International Conference on Communication Systems, Software and Middleware (COMSWARE'07), Bangalore, India, Jan. 2007

3 G.S.Biradar, S.N.Merchant, U.B.Desai, "Adaptive Time Hopping PPM UWB Multiple Access Communication Schemes", IEEE International Symposium on Communications, Information Technologies (ISCIT'07), Sydney, Australia, Oct. 2007

4 G.S.Biradar, S.N.Merchant, U.B.Desai, "Adaptive Frequency and Time Hopping PPM UWB for Multiple Access Communication", IEEE International Conference on Information, Communications and Signal Processing (ICICS'07), Singapore, Dec. 2007

5 G.S.Biradar, S.N.Merchant, U.B.Desai, "Constrained Blind Adaptive Multiuser Detector for DS-CDMA UWB in Multipath Channels", IEEE International Symposium on Spread Spectrum Techniques and Applications (ISSSTA'08), Bologna, Italy, Aug. 2008

6 G.S.Biradar, S.N.Merchant, U.B.Desai, "An Adaptive MMSE-RAKE Receiver for DS-CDMA UWB Multipath Channel" International Conference on Wireless Personal Multimedia Communications Symposium (WPMC'08), Lapland, Finland Sept. 2008

7 G.S.Biradar, S.N.Merchant, U.B.Desai, "Performance of Constrained Blind Adaptive DS-CDMA UWB Multiuser Detector in Multipath Channel with Narrowband Interference", IEEE Global Communication Conference (Globecom'08), New Orleans, USA, Nov-Dec. 2008.

8 Lata and G.S.Biradar, "Optimal routing and data aggregation for maximizing the network lifetime of wireless sensors", International conference on Communication, Computation, Control and Nano technology (ICN-2010) REC Bhalki, India, Oct 2010.pp-271-274.

9 Syeda Fouzia Afreen and G.S. Biradar, "Fuzzy mixed metric approach for optimal routing in MANET based on AODV", International conference on Communication, Computation, Control and Nano technology (ICN-2010) REC Bhalki, India, Oct 2010.pp-354-357.

10 Asharani Patil, G.S.Biradar, Ramesh Patil, "Adaptive Rake receiver for multipath channel" International conference on communication and signal processing (ICCSP) Ongole,India Apr-2012.pp. 55-60.

11 Asharani Patil, G.S.Biradar, Ramesh Patil, "Adaptive Rake Receiver for Multipath Channel", International Conference on Communication and Signal Processing ICCSP-2012.

12 A.Jayashree, G.S.Biradar, V.D. Mytri   "Review of Multipath Routing
    protocols in Wireless Multimedia Sensor Network–A Survey"
    International Journal of Scientific & Engineering Research Volume 3,
    Issue 7, July-2012

13 A.Jayashree, G.S.Biradar, V.D. Mytri   "Energy efficeient interference aware multipath
    routing protocol in WMSN" IEEE conference 2012

14 A.Jayashree, G.S.Biradar, V.D. Mytri   "Energy Efficient QoS Routing in Multi-Sink
    Wireless Multimedia Sensor Networks" International Journal of Computer Science and
    Network Security (IJCSNS) vol 12 no.5 (May 2012): 25-31.

15 A.ayashree, G.S.Biradar, V.D.Mytri, " Adaptive Multi Constraint Multipath Routing
    Protocol in Wireless Multimedia Sensor Network" International Conference on
    Computing Sciences (ICCS), 2012 pp.1-4

16 A.Jayashree, G.S.Biradar, V.D.Mytri,   "A New QoS Adaptive Multipath Routing in
    Wireless Multimedia Sensor Network" Fourth International Conference on
    Computational Intelligence and Communication Networks 2012 pp. 69-73

17 A.Jayashree, G.S.Biradar, V.D.Mytri, " Cluster Based Energy Efficient QoS Routing in
    Multi-Sink Wireless Multimedia Sensor Networks" 7th IEEE Conference on Industrial
    Electronics and Applications (ICIEA) 2012

18 A.Jayashree, G.S.Biradar, V.D. Mytri, " Review of Multipath Routing Protocols in
    Wireless Multimedia Sensor Network –A Survey International Journal of Scientific &
    Engineering Research Volume 3, Issue 7, July-2012

19 Vidya Honguntikar, G.S.Biradar, "Optimization Techniques Incorporating Evolutionary
    Model in   Wireless Sensor Network: A Survey", IOSR Journal of Computer
    Engineering (IOSR- JCE), Vol. 16, Issue 5, Ver. II (Sep – Oct. 2014), PP: 19-24.

20 Ritesh Saradagi Rukhaiyya Siddiqui Umama Shireen Raje, Wasim Raja, Meenakshi Patil,
    and G.S.Biradar "Bit error rate performance of orthogonal codes for for DS-CDMA
    multiuser system in AWGN Channel" Proceedings of 28th IRF International Conference,
    7th June 2015, Pune, India pp82-85

21   Vidya Honguntikar, G.S.Biradar, "Performance Analysis of GTS Allocation in IEEE
    802.15.4 with CSMA/CA for Wireless Sensor Network", 2015 IEEE International
    Conference on Computers, Communications, and Systems (ICCCS), 2-3 Nov. 2015, PP:
    103-107,

22 Vidya Honguntikar, G. S. Biradar, "Anuran Inspired Collision Free Self-organized
    Transmission Scheduling in Wireless Sensor Network",2016 IEEE International
    conference on Control and Robotics Engineering (ICCRE), 2-4 April 2016, Singapore,
    Added to IEEE Xplore: 23 May 2016, INSPEC Accession No: 16005618, DOI:
    10.1109/ICCRE.2016.7476143.

23 Vidya Honguntikar, G.S.Biradar, "Bio-inspired Energy Efficient Collision Free Sleep
    Scheduled Transmission in Wireless Sensor Network", International journal of
    Engineering Research & Technology(IJERT), vol. 5, Issue 5, May-2016, PP: 557-560.

24 Vidya Honguntikar, G. S. Biradar and Meenakshi Patil, "Bio-inspired Energy Aware Scheduling and Routing in Wireless Sensor Networks to Enhance the Network Lifetime", ICICI 2018, Springer Lecture Notes on Data Engineering and Communication Technologies, vol. 26, pp. 448-457, 2019, Switzerland.

25 Asharani Patil, G.S.Biradar, "Comparsion of IDMA with other Multiple Access in Wireless Mobile Communication", 2nd IEEE International Conference on Applied and Theoretical Computing and Communication Technology iCATccT- Bangalore 2016, IEEE Bangalore Section.

26 Asharani Patil, G.S.Biradar, "Performance Analysis of Multi User IDMA with CDMA and OFDM", IEEE International Women in Engineering Conference on Electrical and Computer Engineering , IEEE WIECON 2016

27   Shivkumar S.Jawaligi, G. S. Biradar, "Energy and Load based Emergency Data Collection Scheme using Mobile Sink for Wireless Sensor Networks", International Journal of Computer Applications (0975 – 8887) Volume 150 – No.5, September 2016.

28 Shivkumar S. Jawaligi, G.S.Biradar, "Reliability and Load Sensitive Data Gathering Protocol for WSNs Using Single Mobile Sink Node", IEEE International Conference on Emerging Technological Trends (ICETT), October 2016.

29 Vidya Honguntikar and G. S. Biradar, "Frog-Based Routing Algorithm to Enhance the Network Lifetime of Wireless Sensor Networks", International Journal of Computer Network and Information Security (IJCNIS), August 2017, vol. 8, 9-15, MECS Publisher, DOI: 10.5815/ijcnis.2017.08.02.

30   Sridhara K, G.S.Biradar and RajuYanamshetti, "Subthreshold Leakage Power Reduction in VLSI Circuits: A Survey," IEEE International Conference on Communication and Signal Processing, April 6-8, 2016, India.

31. Sridhara K, G.S.Biradar, "Leakage Reduction and Analysis of CMOS D FF," International Conference on Current Research and Applications in Electrical Sciences, October 4-5, 2017 Kalaburagi, India.

32   Sridhara K, G S Biradar, "Design and Analysis of 1T and 3T DRAM cell with Refresh Circuit" is communicated to Springer conference held at Dayanand Sagar University, Bengaluru.

33 Leveraging Decentralized Identity with ZKSNARKS to Enhance Cloud Data Security, Rekha Gaitond, Dr. Gangadhar S. Biradar, "International Conference on Smart Modernistic in Electronics and Communication-(ICSMEC 24)", December 2024