Dr. G. Sivaradje
B.Tech.,M.Tech., Ph.D., SMIEEE, MISTE, MIETE
PROFESSOR

ACADEMIC PROFILE

1. Name **:** **G.SIVARADJE**

2. Designation & Department **:** Associate Professor/ECE

3. Official Address for Correspondence **:** Dr.G.Sivaradje,
Department of Electronics and Communication Engineering,
Pondicherry Engineering College,
Pillaichavady,
Pondicherry- 605 014.

4. Date of Birth **:** 17/02/1969.

5. Mobile No **:** 9894088077

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7. Qualification :

S.No	Degree	University	Branch	Month & Year of Completion	CGPA or Percentage & Class
1	Ph.D	Pondicherry University	ECE	December 2006	Highly Commended
2	M.Tech.	Pondicherry University	ECE	February 1996	8.12(CGPA) I Class
3	B.E	Madras University	ECE	April 1991	75.10% I Class

8. Area of Specialization **:** Wireless Communication

9. Experience (No. of Years) :

U.G	**:**	17Years
P.G	**:**	17Years
Research	**:**	14 Years

10. Research Guidance

                    (a) PhD   :   8
                    (b)Master's Thesis **:**   **47**
                    (b) Bachelor's Thesis :   36

11. Publications

      Number of papers in
                    (a) Referred Journals   **:**   **29**
                    (b) Referred Conference
                      Proceedings   **:**   55

12. Projects Carried Out   :   4

14. Schools/workshops/Seminars attended :   8

15. Schools/workshops/Seminars organized: 2

16. Specific contributions

❖ Technical Education Quality Improvement Programme of Government of India (TEQIP)– Academic member, Nominated by Government of Puducherry.

❖ Technical expert committee member for Police department and Information department – Government of Puducherry

17. Research areas
- **Mobile Computing**
- **Convergence Networks**

18. Membership in professional bodies
- **Senior member in IEEE**
- **Life member in Indian Society for Technical Education, New Delhi.**
- **Life member in Computer Society of India**
- **Life member in IETE**

19. Other Activities
- Affiliation Inspection Committee Member**,** Anna University of Technology, Coimbatore
- Affiliation Inspection Committee Member**,** Anna University of Technology, Chennai
- National Advisory Committee Member - for several International Conference Committees
- Staff Selection Committee member for various Engineering Colleges

20. List of Publications

INTERNATIONAL JOURNALS

1. G. Sivaradje and P. Dananjayan, "A novel dynamic guard channel scheme for channel allocation in cellular mobile networks" International Journal of Computers and Applications, IASTED, Canada Vol.25, No.4, 2003.

2. G. Sivaradje and P. Dananjayan, "A Flexible Channel Allocation with resource prediction for mobile multimedia networks" WSEAS Transactions on Computers, Issue 5, Vol. 3, pp. 1418-1424, November 2004.

3. G. Sivaradje and P. Dananjayan, "A Prioritized Dynamic Channel Assignment Scheme Based on Mobility in Micro-cellular Networks" Information Technology Journal 3(3): 303-310, 2004.

4. G. Sivaradje and P. Dananjayan, "Mobility Prediction Based Bandwidth Allocation Supporting Multilevel Degradable QoS", Journal of System Management, Vol. 3, No.4, pp 35-44, Nov 2005.

5. G. Sivaradje and P. Dananjayan, "Prioritized Bandwidth Allocation for VBR Traffic in Mobile Multimedia Networks", Elsevier International Journal of Electronics and Communication Engineering, Vol2, No.4, pp 36-44, 2006.

6. G. Sivaradje and P. Dananjayan, "A Prediction Based Flexible Channel Assignment in Wireless Networks Using Road Topology Information", International Journal of Information Technology and Web Engineering, Vol1, no.4, pp 37-48, Oct-Dec 2006.

7. I.Saravanan, G. Sivaradje and P. Dananjayan, "Radio resource management in convergence Technologies" Encyclopedia of Mobile Computing and commerce, Idea Group, Inc., pp. 810-815, 2007.

8. I.Saravanan, G. Sivaradje and P. Dananjayan, "Convergence Technology for Enabling Technologies" Encyclopedia of Mobile Computing and commerce, Idea Group, Inc., pp. 149-153, 2007.

9. G. Sivaradje and P. Dananjayan, "A spectrally overlaid flexible bandwidth utilization scheme for cellular CDMA systems" Int. Journal of Ad Hoc and Ubiquitous Computing, Vol 2, pp 109-118, 2007. **Impact factor: 0.8500**

10. K.Ayyappan, G.Sivaradje, I.Saravanan and P.Dananjayan, "Resource management strategy to support real time video across UMTS and WLAN networks", Journal of Ubiquitous Computing and Communication Vol.2 No. 4, 2007.

11. V.Vanitha, G.Sivaradje and P.Dananjayan, "HIP Based Mobility Management for Integrated Networks" in International Journal of Computer Applications in Engineering, Technology and Sciences, Vol.1, Issue 2, April'09-Sept'09, pp 566-570.

12. R.Surendar, G.Sivaradje and P.Dananjayan, "Performance Comparison of UMTS/WLAN Integrated Architectures with Dynamic Home Agent Assignments" International Journal of Communication Networks and Information Security, Vol 1, No.3, December 2009, pp 73-80.

13. R.Pushpavalli, G.Sivaradje, E.Srinivasan and S.Himavathi. "Neural based Post Processing Filtering Technique for Image Quality Enhancement". International Journal of Computer Applications Vol 38, No.3,pp 38-46, January 2012, New York, USA, **Impact factor: 0.8500**

14. R.Pushpavalli and G.Sivaradje, "Switching Median Filter for Image Enhancement", International Journal of Scientific & Engineering Research, Electronics Vol 3, Issue 2, pp 1-5, Febrauary- 2012. . **Impact factor: 0.415**

15. R.Pushpavalli and G.Sivaradje, " Asymmetric Trimmed Median Filter for Images Highly Corrupted with Random Valued Impulse Noise", International Journal of Computer Applications, Vo. 44, No. 7, pp 19-23, April 2012. **Impact factor: 0.8500**

16. R.Pushpavalli and G.Sivaradje, "Non Linear Filtering Technique for Preserving Edges and Fine Details of Digital Images", International Journal of Electronics and Communication Engineering and Technology, Vol 3, Issue 1, January – June 2012, pp 29-40. **Impact factor: 3.5930**

17. R.Pushpavalli and G.Sivaradje, "A New Tristate Switching Median Filtering Technique for Image Enhancement", International Journal of Advanced Research in Engineering and Technology, Vol 3, Issue 1, January – June 2012, pp 55-65. **Impact factor: 2.7078**

18. G. Vijayalakshmy and G. Sivaradje "Mobility Management for I-WLAN/GAN Integrated Networks" International Journal of Applied Information Systems, Vol. 3, no.4., pp-13-19, July 2012. **Impact factor: 0.8**

19. G.Vijayalakshmy and G.Sivaradje "Convergence architectures for Worldwide Interoperability for Microwave Access-Universal Mobile Telecommunications System- Wireless LAN Interworking using IMS subsystem signaling analysis to achieve QoS", Journal of Sensor Letters, Vol 10, 1-25, 2012**. Impact factor: 1.587**

20. G. Vijayalakshmy, G. Sivaradje **,** "Convergence architectures to achieve QoS for WiMAX and WiFi with high mobility support" International Journal of Wireless and Mobile Computing, Vol6, No.2, pp 182-192, 2013. **Impact factor: 0.85**

21. R.Pushpavalli and G.Sivaradje, "Feed Forward Back Propagation Algorithm for Eliminating Gaussian Noise and Impulse Noise", International Journal of Engineering Research and Technology, Vol2, Issue 4, pp 438-448, 2013. **Impact Factor : 0.2130**

22. R.Pushpavalli and G.Sivaradje, "Feed Forward Back Propagation Algorithm for Eliminating Uniform Noise and Impulse Noise", European Journal of Natural and Applied Sciences, Vol1, Issue 1, pp 10-26, March 2013. **Impact Factor 1.285**

23. R.Pushpavalli and G.Sivaradje, " A Hybrid Filtering Technique for Eliminating Uniform Noise and Impulse Noise on Digital Images", Signal and Image Processing: An International Journal (SIPIJ), Vol4, No.2, pp 76-88, April 2013.

24. R.Pushpavalli and G.Sivaradje, " A Fuzzy Switching Filter for Enhancing Digital Images Corrupted by Impulse Noise", International Journal of Scientific and Research Publications, Vol3, Issue 4, pp 1-6, April 2013.

NATIONAL JOURNALS

1. G. Sivaradje and P. Dananjayan, "The Characteristics of Electronic Payment Systems", in IETE Technical Review – Special Issue "E-Commerce", Vol. 17, No. 4, pp. 197-202, July – August 2000.

2. G. Sivaradje and P. Dananjayan "A Dynamic Channel Assignment Algorithm for High Capacity Microwave Mobile Communication Systems", IETE Technical Review – special issue "Microwave Communication Systems", Vol. 18, Nos. 2 & 3, pp. 207 – 210, March - June 2001.

3. G. Sivaradje and P. Dananjayan "Address Routing and Delivery Time Analysis of Satellite Networks for PCS", IETE Special issue of Microwave Communication Systems, Vol. 18, Nos. 2 & 3, pp. 211 – 218, March - June 2001.

4. G. Sivaradje and P. Dananjayan, "Interactive Computer Mediated Communications for Distance Educations and its limitations", IETE Technical Review – Special issue in "IT Enabled Services", Vol. 18, No. 4, pp. 277 – 282, July – August 2001.

5. G. Sivaradje, D. Saraswady and P. Dananjayan, "LEGICON – Based Segmentation of Magnetic Resonance Images of the Brain", IETE Journal of Research – Special issue of visual media processing, 2002.

6. G. Sivaradje and P. Dananjayan "Extraction of Evoked Potential and Its Applications in Biomedical Engineering", IETE Technical Review in the Special Issue of Bio-Medical Engineering, 2003.

7. G. Nagarajan and P. Dananjayan, " Traffic Enforcement Mechanism in ATM using Neural Network", IETE Technical Review, Vol 21, No. 4, July- August 2004, pp 241-246.

8. G. Sivaradje and P. Dananjayan "Mobility prediction-based Bandwidth Allocation Supporting multilevel Degradable Quality of Service", The ICFAI Journal of Systems management, November 2005, Vol. III No.4, pp 35-44, November 2005.

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1. G. Sivaradje and P. Dananjayan "A Novel Dynamic Guard Channel Scheme for Channel Allocation in Cellular Mobile Networks", Proc. IWTS 2000, 4th International Wireless and Telecommunications Symposium, Malaysia, pp. 155 – 159, May 2000.

2. G. Sivaradje and P. Dananjayan "Wireless ATM Switching Using Single Frequency Multi – user Spread Spectrum Technique", Proc. ICT 2000, International Conference on Telecommunications, Mexico, May 2000.

3. G. Sivaradje and P. Dananjayan "Prevention of Signal Cancellation for Coherent Signal and Interference in Adoptive Beam forming", Proc. ICT 2000, International Conference on Telecommunications, Mexico, May 2000.

4. G. Sivaradje and P. Dananjayan "Adaptive Resource Allocation for Prioritized call admission in wireless networks", Proc. ICMSP 2000, International Conference on Multimedia, Signal processing, pp.45 – 48, IIT Madras, Chennai, India, August 2000.

5. G. Sivaradje and P. Dananjayan, "Analysis of Adaptive Guard Channel Scheme for Mobile Communication", Proc. CCSP, International Conference on Communications and Signal Processing, Florida, September 2000.

6. G. Sivaradje and P. Dananjayan "ATM Based Routing for Non Geostationary satellites", Proc. Asia Pacific international Conference on Communications, Vellore, December 2000.

7. G. Sivaradje and P. Dananjayan "DS / CDMA using Combined binary PPM / Differential M – ary Orthogonal modulation for Non-assisted pilot detection", Proc. Asia Pacific international Conference on Communications, Vellore, December 2000.

8. G. Sivaradje and P. Dananjayan, "Globally Distributed Students Learning using Cyber Communication", Proc. Asia Pacific international Conference on Communications, Vellore, December 2000.

9. G. Sivaradje and P. Dananjayan "Interactive Computation of Coverage Regions for Wireless Communications in Multifloored Indoor Environments", Proc. ICCCD, International Conference on Computers, Communications and Devices, Kharagpur, India pp. 743 – 746, 2000.

10. G. Sivaradje and P. Dananjayan, "LEGICON - Based Segmentation of Magnetic Resonance Image of the Brain", Proc. ICBME, International Conference on Bio – Medical Engineering, pp. 171 – 174, January 24 – 26, 2001.

11. G. Sivaradje and P. Dananjayan "Media Access Control Protocol for Future Multimedia Wireless Networks," Proc. of ICICS 2001, Singapore, October 2001.

12. G. Sivaradje and P. Dananjayan "Dynamic Resource Allocation for Next Generation Wireless Multimedia Services" Proc. ICCS2002 International Conference on Communication Systems, Singapore, pp 752- 754, November 2002.

13. G. Sivaradje and P. Dananjayan "Efficient Resource Allocation Scheme for Real-Time MPEG Video Traffic Over ATM Networks" Proc. ICCS2002 International Conference on Communication Systems, Singapore, pp 747- 751, November 2002.

14. G. Sivaradje and P. Dananjayan "Design and analysis of feedback consolidation for ABR point to multipoint connection in ATM networks", Proc. of ICCC International Conference on computer communication, Mumbai, India, pp1061 - 1070, August 2002.

15. G. Sivaradje and P. Dananjayan "An enhanced signaling and routing protocol for ATM extended multistage bayous networks", Proc. of ICCC International Conference on computer communication, Mumbai, India, pp265 –278, August 2002.

16. G. Sivaradje and P. Dananjayan, "Optimal Resource Utilization for Real-Time MPEG Over ATM Network", Proc. IEEE TENCON 2003, Bangalore, Oct 16th – 18th 2003.

17. G. Sivaradje and P. Dananjayan "A Prioritized Channel Assignment Strategy for Resource Utilization in Call Admission Control" Proc. International Conference on Wireless Networks, India, pp c45-c53, July 2003.

18. G. Sivaradje and P. Dananjayan "Optimal Coding and Resource Utilization for Real-Time MPEG Over ATM Network" Proc. IEEE TENCON 2003, India, pp. 907-912, August 2003.

19. G. Sivaradje and P. Dananjayan, "Adaptive Resource Allocation algorithm for wireless multimedia services" Proc. The 3rd International Conference on Electrical and Computer Engineering, Bangladesh, pp-291-294, December 2004.

20. G. Sivaradje and P. Dananjayan "A Bandwidth Efficient Resource Allocation Scheme For A Real-Time Wireless Video Transmission", Proc. The second International Conference on Advances in Mobile Multimedia, Indonesia, September 2004.

21. G. Sivaradje and P. Dananjayan "Dynamic Resource Prediction and Reservation Scheme For Mobile Multimedia Networks", Proc. The second International Conference on Advances in Mobile Multimedia, Indonesia, September 2004.

22. G. Sivaradje and P. Dananjayan "A Spectrally Overlaid Flexible Bandwidth Utilization Scheme For Cellular CDMA Systems" Proc. International Conference on Communications systems Singapore, September, 2004.

23. G. Sivaradje and P. Dananjayan "Efficient Bandwidth Utilization And QoS In Wireless Intelligent ATM Network For Multimedia Services" Proc. International Engineering Conference, Mutah University, Jordan, April 26-28, 2004.

24. G. Sivaradje and P. Dananjayan "Adaptive Resource Reservation Scheme for Heterogeneous Traffic In Cellular Mobile Networks" Proc. International Engineering Conference, Mutah University, Jordan, April 26-28, 2004.

25. G. Sivaradje and P. Dananjayan "Prioritized Bandwidth Allocation for VBR Traffic in Mobile Multimedia Networks" Proc. International Engineering Conference, Mutah University, Jordan, April 26-28, 2004.

26. G. Sivaradje and P. Dananjayan ,"Direction of Arrival Based Interference Reduction and Capacity Enhancement using Smart Antennas in CDMA Networks", Proc. XVIII URSI General Assembly 2005, New Delhi October 21-28, 2005.

27. G. Sivaradje and P. Dananjayan "Resource Management Strategy to Support Real Time Video across UMTS and WLAN Networks" Proc. Third International Conference on Advances in Mobile Multimedia, Indonesia, September 2005.

28. G. Sivaradje and P. Dananjayan, "Mobility Prediction Based Bandwidth Allocation Supporting Multilevel Degradable QoS" Proc. IEEE Malaysian International Conference on Communication, MICC 2005, Malaysia, Vol 1, 16-18 Nov. 2005.

29. G. Sivaradje and P. Dananjayan "A Prediction Based Flexible Channel Assignment in Wireless Networks Using Road Topology Information" Proc. Third International Conference on Advances in Mobile Multimedia, Malaysia, pp 107-118, September 2005.

30. G. Sivaradje and P. Dananjayan "Adaptive Resource Allocation scheme for Wireless Video Transmission" Proc. International Conference on Information Science, Technology and Management, India, July 2005.

31. I.Saravanan, G.Sivaradje and P.Dananjayan, "QoS provisioning for cellular/WLAN interworking" Proc. of IEEE International conference on Wireless and Optical Communication Networks, IEEE WOCN 2006, April 2006, Bangalore. (ISBN 1-4244-0340-5/06), Digital Object Identifier 10.1109/WOCN.2006.1666543.

32. R.Surender, G.Sivaradje and P.Dananjayan, "Dynamic Home Agent Assignment in WLNA with Cellular Networks", Proceedings of IEEE International Conference on Intelligent Agent & Multi-Agent Systems, July 22-24th 2009Chennai. IEEE Catalog Number: CFP0953H-DVD (ISBN: 978-1-4244-4711-4/09 ©2009 IEEE IAMA 2009).

33. K. Ayyappan, R. Surender, G. Sivaradje and P. Dananjayan, " Network Address Port Translation for Dynamic Home Agent Assignment, Second International Conference on Advances in Computer Vision and Information Technology (ACVIT-2009), 16-19th December 2009

34. K.Vijayalakshmi, G. Sivaradje and P. Dananjayan, "Performance Analysis of WLAN-Cdma2000 Internetworking", Proceedings of International conference on "Recent Advancements in Electrical sciences" (ICRAES'10) 8th & 9th January 2010.

35. R.Pushpavalli and G.Sivaradje "An intelligent post processing technique for image enhancement", International Conference on Emerging Trends in VLSI, Embedded System, Nano Electronics and Telecommunication System (ICEVENT), 2013 **(Published in IEEE)**

36. G. Vijayalakshmy and G. Sivaradje "WiMAX and WiFi convergence architecture to achieve QoS" proceedings of International conference on recent trends in Computing, Communication and. Information Technologies, VIT, India. Obcom, July 2012   (**Springer publication)**

37. G.Vijayalakshmy and G.Sivaradje "WiMAX-UMTS converging Architecture with IMS signaling analysis to achieve QoS" Proceedings of International Conference on Communication and Computing and Security, NIT Rourkela, India, October 2012,**(Elsevier-Science direct publications)**

38. R.Tamijetchelvy and G.Sivaradje, " An Optimized Fast Vertical Handover Strategy for Heterogeneous Wireless Access Networks based on IEEE 802.21 Media Independent Handover Standard" IEEE – Fourth International Conference on Advanced Computing, ICoAC 2012, Anna University, Chennai, December 13-15, 2012. **(Published in IEEE)**

39. G.Vijayalakshmy and G.Sivaradje *A QoS guaranteed Tight coupled WiMAX-3G-WLAN Convergence using IMS signaling analysis" Proceedings on* **IEEE** International Conference Computer Communication an Informatics, January 2013.

NATIONAL CONFERENCES

1. G. Sivaradje and P. Dananjayan "An Efficient CDMA Technique for Wireless ATM Switching," Proc. 31st Mid-Term Symposium on Emerging Wireless Communication Technologies and Systems, April 2000, India.

2. G. Sivaradje and P. Dananjayan "Optimized cell division and cost analysis of a multi-tier cellular communication network": Proc. 31st Mid-Term Symposium on "Emerging Wireless Communication Technologies and Systems", India, April 2000.

3. G. Sivaradje and P. Dananjayan "PC-PC Communication using Infrared link", Proc. National Seminar "Electronic-Advances and Trends", India, pp 44-46, JAN2000.

4. G. Sivaradje and P. Dananjayan "Wireless Transmission of ECG Signals", Proceedings of National Seminar "Electronic-Advances and Trends", India, pp 243-246, JAN2000.

5. G. Sivaradje and P. Dananjayan "The Comparative Response of TCP at Peak Rate with TCP over ATM-ABR Service", IETE-CSI Proc. Trends & Techniques in Information Technology, Gwalior, India, March 2001.

6. G.Sivaradje and P. Dananjayan "Group Randomly Addressed Polling Protocol for Broadband Communication," IETE-CSI Proc. Trends & Techniques in Information Technology, Gwalior, India, March 2001.

7. G. Sivaradje and P. Dananjayan "Neural Network Based Receiver for Mobile Communication," Proc. of National Conference on Communications-NCC2001, pp.71-74, IIT Kanpur, India, Jan 2001.

8. G. Sivaradje and P. Dananjayan "DS / CDMA using Combined Binary Pulse Position Modulation/Differential M-ary Orthogonal Modulation", Proc. National Conference on Communications-NCC 2001, pp. 3-7, India, Jan 2001.

9. G.Sivaradje and P. Dananjayan "Image segmentation Based on Colour Classification" Proc. National Conference on Document Analysis and Recognition (NCDAR2001), Mandya, pp 181-186, July 2001.

10. G. Sivaradje and P. Dananjayan "Design and implementation of Ultrasonic Mobility aid for Blind" Proc. IETE Conference on Information Technology for disabled", Chennai, pp-327-333, June 2001.

11. G.Sivaradje and P. Dananjayan "A Novel Modulation Format for Non-Pilot Aided Detection in Land Mobile Satellite Communications", Proc. National Seminar on Convergence of Technologies by 2010, India pp. 169-172, Jan 2001.

12. G. Sivaradje and P. Dananjayan "Influence of the handoff process on the channel holding time distribution for cellular systems" Proceedings of National Seminar on Convergence of Technologies by 2010, India, pp. 210-212, Jan 2001.

13. G. Sivaradje and P. Dananjayan , "Implementation of Intranet Electronic Mailing System" Proc National Seminar on Convergence of Technologies by 2010, India, Jan 2001.

14. G. Sivaradje and P. Dananjayan , "Performance Analysis of RM Cell Based Connection Splitting of ATM Networks," Proc. Eighth National Conference on Communications, IIT Mumbai, pp 175-179, Jan 2002.

15. G. Sivaradje, L. Nithyanandan and P. Dananjayan "Performance Evaluation of An Orthogonal Frequency Division Multiplexing System," Proc. Eighth National Conference on Communications, IIT Mumbai, pp 393-397, Jan 2002.

16. G. Sivaradje and P. Dananjayan "A Distributed Call Admission Control for Two Dimensional Cellular Array System" Proc. National Conference, Arunai Engg College, Tiruvanamalai, India, December 2003.

17. G. Sivaradje and P. Dananjayan , "Source Model for VBR-Video Traffic Over ATM Networks" Proc. National Conference on Communications (NCC2003), IIT Madras, Chennai, India, January 2003.

18. G. Sivaradje and P. Dananjayan , "A Guaranteed Rate Allocation Algorithm for ATM-ABR Service with and without Connection Estimation" Proc. National Conference on Communications (NCC2003), IIT Madras, Chennai, India, January 2003.

19. G. Sivaradje and P. Dananjayan , "Fuzzy Based Dynamic Connection Admission Controller For ATM Networks" Proc. DAMS2003 Digital Aided Modelling and Simulation, Coimbatore, India, Jan 2003.

20. G. Sivaradje and P. Dananjayan "VHDL Implementation of Text To Speech Converter For Satellite Radio Receivers" Proc. NCC2004, Bangalore, India, Jan 2004.

21. G.Sivaradje and P.Dananjayan, "Direction Of Arrival Based Interference Reduction And Capacity Enhancement Using Smart Antennas In CDMA Networks" Proceedings of URSI 2005, December, Delhi, India

22. V.Vijayalakshmi, G.Sivaradje and P.Dananjayan, "Qos Multicast Routing in Overlay Networks", Proceedings of National Conference on Microelectronics and Communication, pp1-5, 24-25th March 2006, Chennai.