Name:	Dr J.RAJA	
Designation:	Professor & Head	
Qualification:	B.E., M.E., Ph.D.,	
Area of specialization:	Digital Communication	

Experience : (As On Dec 22)	Teaching Experience		
	35 years		

Number of workshop / FDP attended:	Number of Workshops	Number of FDPs
	05	05

Publications:	Conference		Journal	
	National	International	National	International
	15	30	12	36

Patents:	National	International
	Nil	Nil

Professional Body Membership:	1. Life Member of ISTE 2. Fellow of IETE

Staff Achievements:	1. Guided 26 M.E/M.Tech. projects 2. Produced 8 Ph.D. so far 3. Guiding 2 Ph.Ds at present. 4. Published 48 Journals and 45 conference papers.

Technical Papers Published:

Journal Papers:

1. **J.Raja** and S. Shanmugavel, "Performance Analysis of Banyan Switch Architecture" (Jan/Feb 2003) **IETE Journal of Research**, Vol. 49, No.1, pp. 43-53.

2. **J.Raja** and S. Shanmugavel, " Performance studies of Banyan ATM Switching using RS Codes" (May 2003) **Journal of Institution of Engineers**, India, Computer division, Vol. 84, pp. 9-14.

3. Umapathy.C and **J.Raja**, "A prefetching algorithm for improving Web cache performance" (December 2006) **International Journal of Applied Sciences,** Vol. 6(5), pp.3122-3127.

4. Umapathy.C and **J.Raja**, "Discovering frequent patterns and trends by applying Web mining technology in Web log data" (January 2008) **International Journal of soft computing- Medwell Journals**, 2008 Vol. 3(2), pp. 99-105.

5. Sathyabama.G and **J.Raja**, "Techniques for glitch power reduction in CMOS VLSI circuits" (July 2008) **Journal on Intelligent Electronic Systems,** Vol.2, No.1, pp. 75-79.

6. Sheela.T and **J.Raja**, " Studies on the performance improvement of window adjustment procedure in high bandwidth delay product network" (November 2008) **Journal of Theoretical and Applied Information Technology**, Asian Research Publication Agency Network, ISSN : 1817-3195, ESSN: 1992-8615.

7. Thiruchelvi.G and **J.Raja**, " A Survey on Active Queue Management Mechanisms" (November 2008) **International Journal of Computer Science and Network Security**, Vol.8, No. 11, pp.1-18

8. Sasilatha.T and **J.Raja**, " Comparitive studies on the performance of low power transmitters for wireless sensor nodes" (February 2009) **Journal of Computer Science** 5(2): ISSN 1549-3636, Science publications, pp. 140-145

9. Sheela.T and **J.Raja**, " Maximization of throughput by effective queue management scheme for high speed network" (March 2009) **Indian journal of Science and Technology**,

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10. Sheela T and **J.Raja**. (2009), "An Effective Mechanism for congestion control in High Speed Networks", **International journal of Computer Science & Network Security**, Vol.9.No.04, ISSN: 1738-7906, pp.62-70.

11. Sasilatha.T and **J.Raja**, "A 1.2V, 2.4GHz low power 120nm CMOS ASK Transceiver for WSN" (August 2009) **International Journal of Engineering Research and Industrial Applications (IJERIA)**, ISSN 0974 – 1518, Vol. 2, No. VII, pp. 257- 278.

12. Sasilatha. T and **J.Raja**, (2009) "A 1V, 2.4 GHz Low power CMOS Common Source LNA for WSN Applications', **International Journal of Electronics and Communication, Elsevier Publishers** (DOI: 10.1016/j.aeue.2009.07.009).

13. Sheela T. and **J.Raja**, (2009), "Seamless Flow of voluminous Data in High Speed Network without congestion using feedback mechanism", **International Journal on Intelligent Electronic Systems**, Vol.3, No.1, and ISSN: 0973-9238, pp.75-80.

14. Sheela T. and **J.Raja**, (2009), "An effective feedback mechanism for High speed network", **International journal of Electronics circuits and systems**", Vol.3, No.3 ISSN 2070 3724, pp.158-162.

15. Sheela T. and **J.Raja** (2008), "Studies on the Performance Improvement of window Adjustment Procedure in High Bandwidth Delay Product Network", **Journal of Theoretical and Applied Information Technology**, Vol.4.No.10, ISSN: 1817-3195, pp.931-936.

16. Sheela T. and **J.Raja**. (2009), "a new model for congestion detection in high speed protocols", **National Journal of System and Information Technology**, Vol.2, No.2, ISSN: 0974-3308, pp.158-168.

17. Sasilatha T. and **J.Raja** (2009), 'Modified Design and Analysis of a Performance Optimized Common Gate LNA for Low power Wireless Sensor Network Applications', **Journal of Low Power Electronics, American Scientific Publishers (ASP)**, Vol. 5, pp. 50-57.

18. Sasilatha T. and **J.Raja** (2009), 'Modified Design and analysis of Low power CMOS RF Transceivers for Wireless Sensor Networks', **The Mediterranean Journal of Computers and Networks, Soft Motors Ltd**., Vol. 5, No. 3, pp. 88-97.

19. Sasilatha T. and **J.Raja** (2009), 'Modified Design and Analysis of a CMOS LNA for Wireless Sensor Network Applications', **Wireless Personal Communications, Springer Science Publications** (DOI: 10.1007/s11277-009-9867-0).

20. Sheela T. and Raja J. (2010), "Congestion detection techniques in high speed network with high speed protocols", **Journal of Technology**, Vol.6, No.1, ISSN-0973-1334, pp-10-15.

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22. R.S. Ponmagal, **J.Raja** (2011), "An Extensible cloud Architecture model for heterogenous sensor services", **International journal of Computer Science and Information Security**, Vol. 9 No.1, pp 147-155, January 2011.

23. R.S. Ponmagal, **J.Raja** (2011), "SAMON –C: Sensor Access and Monitoring in Cloud Environment", **CiiT International Journal of Networking and Communication Engineering**, Vol.3, No.2, pp.136-144, February 2011.

24. R.Saravanakumar, S.G.Susila, and **J.Raja** (2011), "Energy Efficient Homogeneous and Heterogeneous System for Wireless Sensor Networks", International Journal of Computer Applications (0975 – 8887) Volume 17– No.4, March 2011. IMPACT FACTOR : 0.835

25. R.Saravanakumar, S.G.Susila, and **J.Raja** (2011), "Energy Efficient Constant Cluster Node Scheduling Protocol for Wireless Sensor Networks", WSEAS Transactions on Communications. Issue 4, Volume 10. 2011. pp. 119-128.ISSN: 1109 – 2742. IMPACT FACTOR : 0.030

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27. V.Violet Juli and **J.Raja** (2012), " Mobility assisted Optimized Algorithms for Sensor Node deployment" in the European Journal of Scientific Research, ISSN 1450-216X, Vol. 78 No.1, pp. 156-167, 2012.

28. R.Saravanakumar and **J.Raja** (2012), "Enhanced node scheduling LEACH protocol for wireless sensor networks" Turkish Journal of Electrical Engineering & Computer Sciences (Submitted on May 2012)

29. R.Saravanakumar and **J.Raja** (2012), "Enhanced Energy Efficient Node Scheduling LEACH Protocol for Wireless Sensor Networks" International journal of parallel and distributed computing and networks (Submitted on May2012).

30. V.Violet Juli and **J.Raja** (2012), " A Comparative study on Algorithms fro Mobility in Wireless Sensor Network" in the Journal of Theoretical and Applied Information Technology, ISSN 1992-8645, Vol. 41, No.1, pp. 51-59, July 2012.

31. V.Mohan, **J.Raja**, and S.Jeevanantham (2012), "A Random PWM Scheme Based on Coalescing the Pseudorandom Triangular Carrier and the Randomized Pulse Position for Voltage Source Inverters" in the CiiT International Journal of Programmable Device Circuits and Systems, Vol. 4, No.11, pp. 570-574, July 2012.

32. V.Vaithyanathan, **J.Raja**, and R.Srinivasan (2012), "A low power, high gain low noise amplifier with improved noise figure and input matching for ultra wide band applications", Vol. 36, No.2, pp. 163-174, December 2012.

33. R.Saravanakumar and **J.Raja** (2013), "An energy efficient dexterous node scheduling protocol for wireless sensor networks" in the journal of Archives Des Sciences, Vol. 66, No.2, pp. 512-520, February 2013.

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2. **J.Raja** and S. Shanmugavel, "Sorter based Inter-stage Buffered ATM Switch Network" *in Proc of "NCC-99"* held at IIT, Kharagpur during January 29-31, pp. 609-613, 1999.

3. **J.Raja** and S. Shanmugavel "Performance analysis of Shared output Buffered Sort Banyan ATM Switch Network" in Proc. of National Conference "*NCC 2000*" held at IIT, Delhi during January 28-30, pp. 118-121, 2000.

4. **J.Raja** and S. Shanmugavel "Cell loss Recovery in Sort Banyan ATM networks" in Proc. of International Conference "*ICCCD 2000*" pp.771-774 held at IIT, Kharagpur during 14th to 16th December, 2000.

5. **J.Raja** and S. Shanmugavel "Implementation of Sort Banyan network using VHDL", in Proc. of International Conference "*APT 2000*" pp. 412-417 held at Vellore Engineering College during December 11-16,2000.

6. **J.Raja** and S. Shanmugavel "Performance Analysis of Knockout based MIN Switch for ATM Switching" in Proc. of National Conference "*NCC 2001*" pp. 167-169 held at IIT, Kanpur during January 27-29, 2001.

7. **J.Raja** and S. Shanmugavel "Cell loss Recovery in Banyan Networks using RS codes under Self-similar Traffic" in Proc. of International Conference *ITCOM2001* of SPIE Vol. 4518, pp. 139-145, held at Denver, USA, during August 2001.

8. **J.Raja** and S. Shanmugavel "Cell loss recovery in Sort Banyan Networks using RS Codes" in Proc. of 9th IEEE International Conference *ICON2001*, pp.287-289, held at Bangkok, during October 2001. **(Listed in IEEE Xplore)**

9. **J.Raja** and S. Shanmugavel, "Performance Analysis of Sort Banyan ATM switch Network of degree2" in the Proc. of *IEEE ACE 2001*: 27th Annual Convention and Exhibition of IEEE

India Council, pp.176-178, held at New Delhi, during November 2001.

10. **J.Raja** and S. Shanmugavel, "Performance Analysis of Inter-stage Buffered Banyan Network with FEC technique" in the Proc. of National Conference *NCC2002*, pp. 170-175, held at I.I.T, Bombay, during January 2002.

11. **J.Raja** and S. Shanmugavel, "Performance Enhancement of Banyan Switch architecture under Self-Similar traffic" in Proc. of <u>International Conference</u> *ICCC2002*, pp. 843-853, held at Bombay, during $11^{th} - 14^{th}$ August 2002.

12. **J.Raja**, S. Shanmugavel and M. Malathi, "Performance analysis of Unimin switch architecture" in Proc. of <u>International Conference</u> on Wireless Communication and Networking *ICWCN 2003*, held at SSN College of Engineering, Chennai during 27th to 29th June, 2003.

13. **J.Raja** "Reliable Switching Architecture for high speed networks" in the proc. of *IEEE–INDICON* <u>National conference</u> conducted by IEEE Madras section, pp.252-256, held at I.I.T Madras during 11th -13th December 2005. **(Listed in IEEE Xplore)**

With Ph.D. Students

14. S.Rajarajan and **J.Raja**, "Modified design for RF MEMS variable capacitor" in the Proc. of National conference NCSSC 06 held at Anna University during 1st to 2nd June 2006.

15. S.Rajesh kannan, S.Rajarajan and **J.Raja**, "Modified RF MEMS tunable capacitor for wireless applications" in the Proc. of <u>International conference</u> ICCPS 06 held at Velammal Engineering College during 14th to 16th December 2006.

16. A.Dharmaraja, S.Rajarajan and **J.Raja**, "An optimal FEC technique- soft viterbi algorithm (SOVA) for Turbo decoding", in the Proc. of the national conference on advanced communication techniques – 2007, pp.7.63-67, held at ACCT, Karaikudi during 29th to 30th March 2007.

17. Sheela.T and **J.Raja**, "Performance Evaluation of Protocols in congestion Control for high performance networks" in the Proc. of 3rd national conference on Innovations in Information and Communication Technology- NCIICT 2007, pp. 43-47, held ay PSG College

of Tchnology, Coimbatore, during 21st to 22nd, September 2007.

18. Umapathy.C and **J.Raja**, "Prefetching and catching the most interesting Web Access Data through Weblog Mining" in the Proc. of <u>International conference</u> on Trends in Intelligent electronic systems, TIES 2007, pp.160-166, held at Sathyabama University, Chennai, India during 12th to 14th, November 2007.

19. Umapathy.C and **J.Raja**, " A schematic view on web catching architectures and a comparison with existing cache management" in the Proc. of <u>International conference</u> on Trends in Information Sciences and Computing, TISC 2007, pp.755-759, held at Sathyabama University, Chennai, India during 12th to 14th, December 2007.

20. Rajarajan.S and **J.Raja**, "Numerical modeling of the coaxially gated Schottky-barrier Carbon nano tube field effect transistors, in the Proc. of the national conference Bangalore Nano held during 6th and 7th December 2007.

21. Rajarajan.S and **J.Raja**, "Implementation of single electron tunneling transistor and its applications" in the Proc. of <u>International conference</u> on Trends in Intelligent electronic systems, TIES 2007, vol. II, pp.686-689, held at Sathyabama University, Chennai, India during 12th to 14th, November 2007.

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23. Sheela.T and **J.Raja,** "Performance Evaluation of Congestion , Efficiency and Fairness Control for High Performance Networks" in the Proc. of <u>International Conference</u> on Trends in Information Sciences and Computing, TISC 2007, pp.28-33, held at Sathyabama University, Chennai, India during 12th to 14th, December 2007.

24. Gnana kousalya.C and **J.Raja,** "A traffic aware key management (TKM) scheme for wireless sensor networks" in the Proc. of IEEE <u>International Advanced Computing Conference</u> IACC 2009, pp. 752-756, held at Patiala, India during 6th to 7th March, 2009. **(Listed in IEEE Xplore)**

25. V.Vaithyanathan and **J.Raja,** "A 3.1 to 4.85GHz Differential Low Noise Amplifier for lower band of UWB applications" in the Proc. of the International Conference on Wireless

Communication and Sensor Computing ICWCSC 2010 held at Chennai, India during 2nd to 4th January 2010 **(Listed in IEEE Xplore)**

26. V.Vaithyanathan and **J.Raja,** " Performance analysis of 90nm UWB CMOS low noise amplifier" in the Proc. Of the International Conference on Electronic Design and Signal Processing (ICEDSP 2009) held at Manipal, India during 10th to 12th December 2009. **(Listed in IEEE Xplore)**

27. C.Thiruvenkatesan and **J.Raja**, "Studies on the applications of Carbon Nanotube as interconnects for Nanometric VLSI circuits" 2nd International Conference on the Emerging trends in Engineering and Technology (ICETET)held at Nagpur, India during 16th to 18th December 2009, pp.162-167. **(Listed in IEEE Xplore)**

28. Thiruchelvi.G and J.Raja, "An adaptive Congestion control mechanism for unresponsive flows" in the Proc. of the IEEE International Conference on Internet Multimedia Services Architecture and Applications (IMSAA), held at Bangalore during 10th to 12th December 2009, pp. 1-5 **(Listed in IEEE Xplore)**

29. V.Mohan, J.Raja, and S.Jeevanantham, "Chaos-Based PWM Strategies for Suppression of Harmonics in dc-ac Power Conversion" in the Proc. of International Conference on Recent Advancement in Electrical Sciences (ICRAES -10), Vol. 1, pp. 836 -846, held during 8th & 9th January 2010.

30. R.Saravanakumar, S.G.Susila, and J.Raja, "An Energy Efficient Cluster Based node Scheduling Protocol for Wireless Sensor Networks (Constant Clustering)". in the Proc. of 10TH IEEE International Conference on Solid- State and Integrated Circuit Technology (ICSICT 2010) held during November 1-4, at Shanghai, China, 2010.

31. R.Saravanakumar, S.G.Susila, and J.Raja, "An Energy Efficient Cluster Based node Scheduling Protocol for Wireless Sensor Networks (Re-Clustering)". in the Proc. of IEEE International Conference on Computational Intelligence and Computing Research (2010 IEEE ICCIC) held during December 28 & 29, at Tamilnadu College of Engineering, Coimbatore, Tamilnadu, India, 2010.

32. G.Thiruchelvi, J.Raja, and M.Saravanan, "Active Queue Management based Congestion Control for Unresponsive Flows" in the Proc. of International Conference CIIT 2011 held at Coimbatore, India, pp. 832-837, 2011

33. S.Jeevanantham, CH.Venkatesh, V.Mohan, and J.Raja, "Adaptive LMS Algorithm Based Input Current Harmonic Suppression in AC-DC-AC Drive with Either Constant Or Pulsed DC Link" in the Proc.of the 46th Universities Power Engineering Conference held in Germany during September 5th to 8th, 2011

34. V.Mohan, J.Raja, and S.Jeevanantham, "An on-line Adaptive Filtering for Selective Elimination of Dominant Harmonics from Line Currents of a VSI Fed Drive Using Recursive Least Square Algorithm" in the Proc. of IEEE - International Conference On Advances In Engineering, Science And Management (ICAESM -2012), pp.773-778, held during 30 & 31st March, 2012.

With PG Students

35. **J.Raja** and J.Radhika, "Design and implementation of traffic analyzer for TCP,UDP,IP and ICMP protocols" in the Proc. of National conference NATCON 04 conducted at Noorul Islam College of Engineering, Thuckalay pp. 209-214, held during 7th to 8th April 2004.

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37. S.Booma and **J.Raja**, "Network monitoring using SNMP in linux platform" in the Proc. of National conference NCCC-MCS 2005 held at GCE, Trinelveli during April 2005.

38. R.Hemalatha, **J.Raja** and Kanchana, "Power management in Banyan switching architecture" in the Proc. of NCBCN 2005 held at SSN College of Engineering, pp. 102-105, during 18th to 20th March 2005.

39. K.Samundeswari and **J.Raja**, " Studies on the performance of various codes for their suitability in high speed networks" in the Proc. of National conference NCCT 06 held at MEPCO Schlenk Engineering College, Sivakasi, pp. 101-103 during 10th to 11th March 2006.

40. S.Ezhilarasi and **J.Raja**, "Studies on the performance of Turbo coded modulations over wireless channels" in the Proc. of National conference NCCT 06 held at MEPCO Schlenk Engineering College, Sivakasi, pp. 62-67 during 10th to 11th March 2006. **(awarded the best paper in the conference)**

41. A.Balamurali and **J.Raja**, "An approach to authentication beyond firewall" in the Proc. of the International conference on soft computing techniques in engineering held at Avinasilingam University Coimbatore, pp. 24-29 during 24th to 25th January 2007.

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43. A.Asha and **J.Raja**, "A novel transport scheme for energy efficiency in wireless sensor network for health monitoring system" in the National conference on convergence if IT research held at MEPCO Schlenk Engineering College, Sivakasi, during 9th March 2007.

44. S.K.Anand kumar and **J.Raja**, "Simulation and evaluation of Mobile Adhoc Node in Cell Broadband Engine Architecture" in the National conference on convergence if IT research held at MEPCO Schlenk Engineering College, Sivakasi, during 9th March 2007.

45. M.Radha and **J.Raja**, "Design and Implementation of routing and addressing libraries for Mobile Adhoc Networks using Cell Broadband Engine" in the National conference on convergence if IT research held at MEPCO Schlenk Engineering College, Sivakasi, during 9th March 2007.

46. Senthil.K and **J.Raja**, "Design and implementation of 3D core display for temperature of the nuclear reactor" in the Proc. of the National conference on recent trends in information and communication technology, RTICT 2008 held at Bannari amman Institute of Technology during 17th to 18th March 2008.

47. Bhavani.K and **J.Raja**, "Performance analysis of TCP friendly AIMD protocol for congestion control" in the Proc. of the National conference on recent trends in information and communication technology, RTICT 2008 held at Bannari amman Institute of Technology during 17th to 18th March 2008.

48. Umasankar.C.B and **J.Raja,** "Performance Analysis of HLP in Internet Routing" in the Proc. of the 2nd National Conference on Computing and Communication, NCCC'08, pp. 5-9, held at Dr Mahalingam College of Engineering & Technology during 8th to 9th April 2008.

49. Balaji.P.S.S and **J.Raja,** "Performance Analysis of three Scheduling Schemes for WiMax Environment" in the Proc. of the 2nd National Conference on Computing and

Communication, NCCC'08, pp. 45-49, held at Dr Mahalingam College of Engineering & Technology during 8th to 9th April 2008.