List of Publications and Conference Papers

Publications

<u>In Journals – Published and Under Review</u>

1. D. Jalihal and L. W. Nolte,"Signal Detection Theory Approach to the Multiple Parallel Moving Targets Problem", *Computer Vision, Graphics and Image Processing*, Vol. 55, No. 4, July, 1993, pp 235–254.

2. D. Jalihal and L. W. Nolte,"Signal Detection Theory and Reconstruction Algorithms – Performance for Images in Noise, "*IEEE Trans. on Biomedical Engineering*, Vol. 41, No. 5, pp 501–504, May 1994.

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4. C. Vijayalakshmi, D. Jalihal and B. Ramamurthi, "Capacity Calculation of Wireless Local loop with Dynamic Channel Selection", *IETE Journal of Research*, Vol. 49, No. 6, pp 411-422, Nov-Dec 2003.

5. M. Joseph and D. Jalihal, "DSP Algorithms for Satellite Transmultiplexer and Receiver", *IETE Journal of Research*, Vol. 50, No. 5, Sep-Oct 2004.

6. J. Klutto Milleth, K. Giridhar and Devendra Jalihal, "Performance Enhancement of Space-Time Trellis Codes When Encountering AWGN and Ricean Channels", IEEE Trans. on Vehicular Technology, Vol, 54, No. 4, pp 1352-1360, July 2005,

7. J. Klutto Milleth, K. Giridhar and Devendra Jalihal, "Pre-processed space-time trellis codes with one-bit feedback", IEEE Communication Letters, Vol. 9, No. 8, pp 703-705, August 2005.

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10. J. Klutto Milleth, K. Giridhar and Devendra Jalihal, "On channel orthogonalization using space-time block coding with partial feedback", IEEE Trans. on Communications, Vol.54, No. 6, pp 1121-1130, June 2006.

11. G.V.Rangaraj, D.Jalihal and K.Giridhar, "On OFDM Systems with Spatially Correlated Antennas in Low Multipath Diversity Situations", IEEE Signal Processing Letters, Vol 11, No. 12, pp 945-947, December 2004.

12. G.V.Rangaraj, D.Jalihal and K.Giridhar, "On Usefulness of multipath diversity for multiple antenna OFDM systems", IETE Technical Review, Special issue on Broadband Wireless Technologies, Vol 21, No. 5, September-October, 2004.

13. G.V.Rangaraj, D.Jalihal and K.Giridhar, "Exploiting Multipath Diversity in Multiple Antenna OFDM systems with Spatially Correlated Channels", IEEE Transaction on Vehicular Technology, Vol. 54, No. 4, pp 1372-1378, July 2005.

14. <u>Ganesh V</u> and D. Jalihal, "Power Allocation in MISO Channel with Co-ordinate Interleaving technique", IEEE Signal Processing Letters, Vol. 14, No. 5, pp 309-312, May 2007.

15. <u>Nandita Lavanis</u>, D. Jalihal, Srikrishna Bhashyam and Arun P. K. "Finite-SNR DMT of MISO/SIMO Channels with a Pilot-based Training Scheme", manuscript submitted to IEEE Communications Letters, december 2012.

<u>National Conferences – Presented and To Appear</u>

1. <u>V. Nambakam</u>, B. Ramamurthi and D. Jalihal, "Statistical Multiplexing with Variable Rate Embedded Coding for Voice Circuit Multiplication", NCC 97, IIT Madras.

2. <u>P. Kishore</u>, R. Aravind and D. Jalihal, "A Real Time Video Conferencing System", NCC 98, IISc, Bangalore.

3. <u>C. Vijayalakshmi</u>, D. Jalihal and B. Ramamurthi, "Capacity of High Density Macro Cellular Wireless Local Loop System Based on Dynamic Channel Selection", NCC 99, IIT Kharagpur.

4. <u>M. Joseph</u>, D. Jalihal, B. Ramamurthi and K. Giridhar, "DSP Algorithms for a 15-Channel Satellite On-board Transmultiplexer Receiver", NCC 2000, New Delhi.

5. <u>C. Kotilingaiah Setty</u>, Bhaskar Ramamurthi and D. Jalihal, "IP-PX: A Wireless Local Loop System for Small Communities", NCC 2001, IIT Kanpur.

6. <u>Valli Madhavi</u>, K. Giridhar, Bhaskar Ramamurthi and D. Jalihal, 'High-speed DECT based Internet Download System", NCC 2001, IIT Kanpur.

7. <u>D. Jagadheep</u> and D. Jalihal,"G.722.1: A New Wideband Codec at 24 and 32 Kbps", NCC 2001, IIT Kanpur.

8. <u>A. G. K. Vanchynathan</u>, Ashwin Mansinghka, M. Kalyan Chakravarti, Timothy Gonsalves and D. Jalihal, "Design and Implementation of LINUX based high-available ISP Servers", NCC 2001, IIT Kanpur.

9. <u>Sheetal Kiran</u>, Devendra Jalihal and R. Aravind, "Real-time implementation of TETRA speech codec on TMS320C54xB", NCC 2002, IIT Bombay.

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13. <u>N. Balamurali</u>, D. Jalihal and K. Giridhar, "EKF Algorithm for Combined Carrier And Sampling Offset Tracking in OFDM WLAN Systems", NCC 2004, IISc, Bangalore.

14. <u>J. Klutto Milleth</u>, K. Giridhar and Devendra Jalihal, "New space-time block codes with full rate", NCC 2004, IISc, Bangalore.

15. <u>Ganesh V</u> and D. Jalihal, "Achieving near beamforming performance with quantized feedback in multiple-transmit antenna systems", NCC 2007, IIT Kanpur, 2007.

16. <u>Umender Koosem</u> and D Jalihal,"Algorithm for Detecting Video and a New Design for Handling Video Applications in Thin-Client Systems at Low Bit Rates", NCC 2008, IIT Bombay, 2008.

17. <u>P. Sankar</u>, Arun Kumar Sharma, D Jalihal and Andrew Thangaraj, "Turbo Product Codes for a satellite modem", NCC 2008, IIT Bombay, 2008.

18. <u>Nandita Lavanis</u> and D. Jalihal,"Diversity Multiplexing Tradeoff of SIMO Maximal-Ratio Combining Scheme", NCC 2009, IIT Guwahati, 2009.

19. <u>Nandita Lavanis</u> and D. Jalihal,"Finite-SNR Diversity Multiplexing Tradeoff of SIMO Diversity Combining Schemes under Nakagami-m Fading", NCC 2010, IIT Madras, 2010.

20. <u>Sayan Ghosal</u> and D. Jalihal,"A Multicarrier CDMA Based Low Probablity of Intercept Network", NCC 2010, IIT Madras, 2010.

21. <u>Gaurav Potnis</u> and D. Jalihal,"Novel Polyphase Training Sequence based Synchronization Estimator for OFDM", NCC 2011, IISc Bangalore, 2011.

22. <u>Vidyadhar Upadhya</u> and D. Jalihal,"Almost Exact Threshold Calculations for Covariance Absolute Value Detection Algorithm", NCC 2012, IIT Kharagpur, 2012.

23. <u>Dewangan, Amardeep</u> and Jalihal, Devendra, "Statistics based energy efficient caching decisions for IPTV services", NCC 2013, IIT Delhi, 2013.

<u>International Conferences – Published and Under Consideration</u>

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4. <u>I. Pramod</u> and D. Jalihal, " FEC based packet recovery techniques for real-time speech over internet", International Conference on Multimedia Processing and Systems (ICMPS-2000), held at IIT Madras Aug 13-15 2000.

5. <u>I. Pramod</u>, D. Jalihal,"Desig of a real-time audio conferencing system over wired and wireless Internet", International Conference on Parallel and Distributed Processing Techniques and Applications, PDPTA'2000 Las Vegas, USA.

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14. J. Klutto Milleth, K. Giridhar and Devendra Jalihal, "Transmit diversity schemes for channel Orthogonalization using low bit-rate feedback", Proceedings of 2005 Wireless World Research Forum, WWRF#13 Meeting, Korea, March 2005.

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19. Vinay Prabhu and Devendra Jalihal,"On improved channel estimation for OFDM systems using the additive eigen value inflation factor approach", IEEE-Sarnoff Symposium 2008, Princeton, NJ, USA, 28-30 April 2008.

20. Ramesh Kumar, M.R., Bhashyam, S. and Jalihal, D., " Throughput improvement for cell-edge users using selective cooperation in cellular networks", 5th International Conference on Wireless and Optical Communications Networks, 2008. WOCN '08. 5th IFIP, 5-7 May 2008.

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22. Vinay Prabhu and Devendra Jalihal,"A Novel Pilot Aided Time of Arrival (TOA) Estimation Algorithm for Vehicular OFDM Systems in Specular Wireless Channels", IEEE-GLOBECOM Workshops 2008, New Orleans, LA, USA, Nov. 30-Dec. 4 2008,

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