

## **SATISH CHAND**

Ph.D. (Comp. Sc.) Jawaharlal Nehru University, Delhi.

M.Tech. (Comp. Sc.) IIT Kharagpur.

M.Sc. (Maths.) IIT Kanpur.

Qualified **CSIR JRF** and **GATE** with percentile 94.13.

**Areas of Interest:** Video Broadcasting, Image processing, Wavelet transforms applications, Digital watermarking, Steganography, Sensor networks.

### **Administrative Responsibilities**

- Chairman, All India Board of Information Technology, AICTE.
- Director, Placement cell, Jawaharlal Nehru University, Delhi.

### **Have been reviewing papers for the following Journals from time to time:**

- IEEE Transactions on Multimedia
- IEEE Transactions on Communications
- IEEE Transactions on Broadcasting
- IEEE Transactions on Computers
- IEEE Transactions on Vehicular Technology
- IEEE Communication Letters
- IEEE Transactions on Industrial Informatics
- Multimedia Systems (Springer)
- Wireless Personal Communications (Springer)
- Digital Signal Processing (Elsevier)
- Computer and Electrical Engineering Journal (Elsevier)
- Journal of Network and Computer Applications (Elsevier)
- Journal of Computational and Applied Mathematics, Elsevier
- Technical Journal: Computer Engineering, Institute of Engineers (India)
- Journal of the Network and Systems Management (Elsevier)

### **Lectures Delivered:**

- i. Delivered lecture on Image coding/Video services in 1<sup>st</sup> Interdisciplinary Courses in Computer Sciences, Bioinformatics and Information Technology, Aug. 24- Sept. 18, 2015.
- ii. Delivered lecture on Video services in Workshop for Enlightenment on Advance Research Trends in Computer Technology (WEAR-C-TECH'15), Govt. Mahila Engineering College Ajmer, Rajasthan, India Sept. 30- Oct. 4, 2015.

- iii. Delivered lecture on image encoding techniques in Short term course on 'Digital Image Processing & its Applications.' CSE, ISM Dhanbad, March 26 & 27, 20015
- iv. Delivered a talk on Video-demand Services in National Conference on 'Latest Trends in Electronics and Computational Technology' Jammu University, Jammu, March 20, 2015.
- v. Delivered a lecture on some aspects on image processing in Short term course on Speech and Video Processing, Bhai Parmanand Institute of Business studies, Delhi, Sept.5, 2014.
- vi. Delivered a lecture on Some Aspects on Video broadcasting in Short term course on Speech and Video Processing, Bhai Parmanand Institute of Business studies, Delhi, Sept.2, 2014.
- vii. Delivered a lecture on Video-On-Demand in 17th Refresher Course in Computer Science and Information Technology, Jawaharlal Nehru University, Aug. 1, 2014.
- viii. Invited to deliver an expert lecture for staff development programme on Applications of Numerical Methods and Software in Science and Engineering, Department of Applied Mathematics (University Institute of Technology), Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, (M.P.), Dec., 10-22, 2012.
- ix. Delivered lectures in Staff Development programme on Applications of Advanced Computing Technologies: The Emerging Research Trends, Jan. 2 - 14, 2012, Ambedkar Institute of Advanced Communication Technologies & Research, Geeta Colony, Delhi.
- x. Delivered lectures in Refresher Course on Latex and Matlab, Jul. 7, 2010 - Jul. 24, 2010 at NSIT New Delhi.
- xi. 2010 at NSIT New Delhi.
- xii. Invited as a keynote speaker for the national conference at IIPM college of Engg, Greater Noida, Nov. 10, 2011
- xiii. Presented papers in 54<sup>th</sup> Congress of Indian Society of Theoretical and Applied Mechanics, Dec. 18-21, 2009, NSIT New Delhi.
- xiv. Delivered a talk on Video-on-Demand on Jan. 21, 2009 at Institute of professional Excellence & management, Ghaziabad.
- xv. Delivered Lectures entitled 'Video-on-Demand' on Nov. 21, 2008 for the 11<sup>th</sup> Refresher Course in Computer Science at Academic Staff College, Jawaharlal Nehru University, Delhi.
- xvi. Delivered a talk in a seminar entitled 'Data Storage and Retrieval' on April 18, 2007 at Apeejay School of Management, Dwarka, New Delhi.
- xvii. Delivered lectures to students under Special Component Program for weaker sections at NSIT, Delhi.

### **Administrative Responsibilities held in past**

- i. Chairman, Maintenance Advisory Committee, institute level, NSIT.
- ii. Chairman, Committee for drafting M.Tech. Thesis supervision, NSIT.
- iii. Chairman of committee for recommendation of laying LPG gas pipelining in NSIT campus
- iv. Member of committee for procurement of consumable items for central workshop for 2012-13

- v. Member of committee for purchase of Power Electronics Lab Secure Setting B 102.111.40 and Power Electronics Lab circuit with research content management B 102.111.50.
- vi. Member of purchase committee for Misc. items for Physics lab
- vii. Member of committee for selection of students for DLF Foundation scholarship
- viii. Member of academic council, NSIT
- ix. Member of Institute research committee
- x. M.Tech. (Information System), Coordinator
- xi. Office-in-Charge of Distributed Computing Laboratory
- xii. Member in BE admission committee
- xiii. Coordinator for a anti ragging vigilance squad since 2003
- xiv. Member of INS (Institute Networking Scheme) in 2000, 2001, 2002
- xv. Member of Institute Interaction Partnership Cell (IIPC) in 2001
- xvi. Member of the Lecture Series Committee 2001
- xvii. Associated with the timetable work in July, 2000
- xviii. Member of the Committee to procure Computers in 2000
- xix. Member of the Committee to procure Sound System in 2000
- xx. Member of the Committee to procure Conferencing System in 2000
- xxi. Member of the Committee to procure LCD Projector in 2000
- xxii. Member of the Committee to procure UPS under INS in 2002
- xxiii. Coordinator, Winter Training for BE(Computer Engg) in 2002, 2003, 2004
- xxiv. Member of the Committee to procure items for Computer Networking cable plant in 2002
- xxv. Member of the Committee to review water charges in 2003
- xxvi. Member of the Committee of Office Automation project in 2003
- xxvii. Member of the Committee for Condemnation of Microcomputer/Unix lab's in 2004
- xxviii. Member of the Committee for Annual Maintenance Contract in 2004
- xxix. Coordinator of a students' team meant for developing a website: www.nsit.edu in 2002
- xxx. Member of the Networking Committee in 2004.

### **Active Participation in organizing the Conferences/Symposiums**

- a. *Active participation in International Meet of Applied Mathematics, Dec 2009*
- b. *34<sup>th</sup> ISTE Annual Convention & National Seminar, Dec. 18-20, 2004, at NSIT, New Delhi.*
- c. *Joint 9<sup>th</sup> National Conference of the Vijnana Parishad of India on Applied and Industrial Mathematics and 5<sup>th</sup> Annual Conference of Indian Society of Information Theory and Applications, Feb. 2002, held at NSIT.*
- d. *National Symposium on Ancient Indian Science, Engineering & Technology interfaced with the Modern Knowledge, Dec. 14-15, 2001 at Indian Agricultural Research Institute, New Delhi.*
- e. *National Conference on Traditional & Modern Swadeshi Vigyan, Dec. 26-27, NSIT, New Delhi.*

## LIST OF PUBLICATIONS

### *In refereed International Journals*

1. Rajeev Kumar and Satish Chand, "A reversible high capacity data hiding scheme using combinatorial strategy", *International Journal of Multimedia Intelligence and security*, Inderscience, (Accepted)
2. Rajeev Kumar, Satish Chand, and Samayveer Singh, "A Reversible Data Hiding Scheme Using Pixel Location," *International Arab Journal of Information Technology (IAJIT)*. Accepted
3. Saurabh Agarwal, Satish Chand, and S. Nickolay, "SPAM Revisited for Median Filtering Detection using Higher Order Difference" *Security and Communication Networks*, Wiley Publications, accepted.
4. Samayveer Singh, Satish Chand, and Bijendra Kumar, "Optimum Deployment of Sensors in WSNs" *Journal of Information and Optimization Sciences*, Taylor and Francis, Vol. 37(4), pp. 605-619, 2016.
5. Samayveer Singh, Satish Chand, and Bijendra Kumar, "Multilevel Heterogeneous Network Model for Wireless Sensor Networks", *Telecommunication Systems*, Springer, pp. 1-19, 2016.
6. Samayveer Singh, Satish Chand, and Bijendra Kumar, " Optimum sink location for sensor deployment in wireless sensor networks," *Journal of Information and Optimization Sciences*, Taylor n Francis, Vol. 37(4), pp. 605-619, 2016,
7. Rajeev Kumar, and Satish Chand, "A Reversible Data Hiding Scheme Using Bit Flipping Strategy", *Journal of Discrete Mathematical Sciences & Cryptography*, Taylor & Francis, Vol. 19(2), pp. 331-345, 2016.
8. Mohit Jain, Satish Chand, "Issues and Challenges in Node Connectivity in Mobile Ad Hoc Networks: A Holistic Review," *Wireless Engineering and Technology*, Scientific Research Publishing, USA , Vol. 7(01), pp. 24-35, 2016.
9. Samayveer Singh, Satish Chand, and Bijendra Kumar, "Energy Efficient Clustering Protocol Using Fuzzy Logic for Heterogeneous WSNs," *Wireless Personal Communications*, Vol. 86(2), pp. 451-475, 2016.
10. Satish Chand "Study of Buffer Storage in Video Channelization," *Journal of Information and Optimization Sciences*, Vol. 37(3), pp. 389-404, 2016
11. Rajeev Kumar and Satish Chand, "A reversible high capacity data hiding scheme using pixel value adjusting feature", *Multimedia Tools and Applications*, Vol 75(1), pp. 241-259, 2016.

12. Samayveer Singh, Satish Chand, and Bijendra Kumar, "Heterogeneous Energy-Efficient protocols using Fuzzy Logic for WSNs" *Wireless Personal Communication journal*, Springer, Vol. 86, pp. 451–475, 2016.
13. Rajeev Kumar and Satish Chand, "A Novel High Capacity Reversible Data Hiding Scheme based on Pixel intensity Segmentation", *Multimedia Tools and Applications*, Springer, pp. 1-18, Nov. 2015
14. Rajeev Kumar, Samayveer Singh, Bijendra Kumar, and Satish Chand, "Unicode space and font types based reversible high capacity text steganography scheme," *Journal: Perspective in Science*, Elsevier, pp. 8-14, Sept. 2015.
15. Saurabh Agarwal and Satish Chand, "Image Forgery Detection using Multiscale Entropy Filter and Local Phase quantization" *International Journal of Image, Graphics, and Signal Processing*, Vol. 7(10), pp. 78-85, Sept. 2015.
16. Saurabh Agarwal and Satish Chand, "Anti-forensic of JPEG images using Interpolation" *International Journal of Image, Graphics, and Signal Processing*, Vol. 7(12), pp. 78-85, 2015.
17. Rajeev Kumar, Satish Chand and Samayveer Singh, "An Efficient text steganography scheme using Unicode Space characters", *International Journal of Forensic Computer Science*, Vol. 10(1), pp. 8-14, 2015.
18. Satish Chand "Estimation of Storage using Jitter incorporated Channelization," *Journal of Information and Optimization Sciences*, Vol. 36(5), Sept. 2015, pp. 405-419.
19. Satish Chand, "Analytical Study of Disk Performance for Continuous Media Streaming", *Journal of Information and Optimization Sciences*, Taylor & Francis, Vol. 36 (2015), No. 1 & 2, pp. 43–59.
20. Samayveer Singh, Singh, Satish Chand, and Bijendra Kumar, "Performance Evaluation of Distributed Protocols Using Different Levels of Heterogeneity Models in Wireless Sensor Networks", *Intl Journal of Computer Network and Information Security*, Vol. 7(1), pp.38-45, 2014.
21. Satish Chand, "Efficient Time-Frequency Localization of a Signal", *International Journal of Digital Multimedia Broadcasting*, Hindawi Publishing Corporation, 2014, Article ID 529852, 10 pages, <http://dx.doi.org/10.1155/2014/529852>
22. Samayveer Singh, Satish Chand, Bijendra Kumar, "Performance Evaluation of Distributed Protocols Using Different Levels of Heterogeneity Models in Wireless Sensor Networks" *Intl Journal of Computer Network and Information Security*, vol. 7(1), pp. 38-45, 2014.
23. Satish Chand, Samayveer Singh, and Bijendra Kumar, "Heterogeneous HEED Protocol for Wireless Sensor Networks," *Wireless Personal Communication journal*, Springer, 77(3), pp. 2117-2139, 2014.

24. Samayveer Singh, Satish Chand, Rajeev Kumar, and Bijendra Kumar, "Optimal sensor deployment for WSNs in grid environment," *Electronics Letters, IET*, Vol. 49(16), pp. 1040-1041, 2013.
25. Rajeev Kumar, Khushil K. Saini, and Satish Chand, "A New Steganography Technique Using Snake Scan Ordering Strategy," *International Journal of Image, Graphics and Signal Processing, Taiwan*, Vol. 5(6), pp. 25-32, 2013.
26. Satish Chand, Samayveer Singh, Bijendra Kumar, "3-Level Heterogeneity Model for Wireless Sensor Networks", *International Journal of Computer Network and Information Security, Taiwan*, Vol. 5(4), pp. 40-47, 2013.
27. Satish Chand, Samayveer Singh and Bijendra Kumar, "hetADEEPS: ADEEPS for Heterogeneous Wireless Sensor Networks," *International Journal of Future Generation Communication and Networking Vol.6(5) (2013)*, pp.21-32
28. Sandeep Kumar and satish Chand, "New Pixel based Approach for Reverse Play of MPEG Video for Streaming System", *Signal Processing: Image Communication Journal, Elsevier*, 26 (Oct. 2011), pp. 182-192.
29. Sudeep Kanav and Satish Chand, "Adaptability of Conservative Staircase Scheme for Live Videos," *Circuit and Systems Journal, Scientific Research Publishing, USA*, Vol. 2, pp. 151-161, July 2011.
30. Satish Chand, "Live Video Services using Fast Broadcasting Scheme," *Communications and Network Journal, Scientific Research Publishing, USA*, Vol. 2(1), pp. 79-85, 2010.
31. Sandeep Kumar and Satish Chand, "Extraction of Desired Partial Block of a Frame from MPEG Video Stream," *International Journal of Computer Applications (0975 – 8887)*, Vol. 1(2), pp. 85-88, 2010.
32. Satish Chand and Hari Om, "Efficient Staircase Scheme with Seamless Channel Transition Mechanism," *Computer Networks, Elsevier*, Vol. 54(3), pp. 462-474, 2010.
33. Satish Chand, "Efficient Generalized Conservative Staircase scheme for popular Videos," *IEEE Transactions on Consumer Electronics*, Vol. 55(2), pp. 878-882, May 2009.
34. Satish Chand, "Buffer Storage for Continuous Delivery of Video Data," *Applied Mathematical Modeling, Elsevier*, 33 (2009), pp. 3936-3942.
35. Satish Chand, Bijendra Kumar, and Hari Om, "Segmented Patching Broadcasting Protocol for Video Data," *Computer Communications, Elsevier*, Vol. 32, pp. 679-684, 2009.
36. Satish Chand, Bijendra Kumar, and Hari Om, "Video Data Delivery using Slotted Patching," *Journal of Network and Computer Applications, Elsevier*, Vol. 32, pp. 260-265, 2009.
37. Satish Chand and Hari Om, "Storage Space Estimation for Videos using Fading Channels," *Digital signal processing, Elsevier*, Vol. 19, pp. 287-296, 2009.
38. Satish Chand, "SC- and SS- wavelet Transforms," *Signal Processing, Elsevier*, Vol. 89, pp. 305-313, 2009.

39. Satish Chand, Bijendra Kumar, and Hari Om, "Patching-based Broadcasting Scheme for Video Services," *Computer Communications*, Elsevier, Vol. 31(10), pp. 1970-1978, June 2008.
40. Satish Chand and Hari Om, "Phase Estimation in Data Channelization for Videos," *Multidimensional System and signal processing*, Springer, Vol. 19(2), pp. 247-256, June 2008.
41. Satish Chand and Hari Om, "Efficient Utilization of Buffer Storage in Conservative Staircase Broadcasting Scheme," *IEEE Trans on Consumer Electronics*, Vol. 54(3), pp. 1360-1368, 2008.
42. Satish Chand and Hari Om, "Modeling of Buffer Storage in Video Transmission," *IEEE Transactions on Broadcasting*, Vol. 53(4), pp. 774-779, Dec. 2007.
43. Hari Om and Satish Chand, "Geometrico-harmonic Broadcasting Scheme with Continuous Redundancy," *IEEE Transactions on Multimedia*, Vol. 9(2), pp. 410-419, Feb. 2007.
44. Satish Chand and Hari Om, "Geometrico-Harmonic Data Broadcasting and receiving Scheme," *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 17(1), pp. 16-25, 2007.
45. Satish Chand, Bijendra Kumar, and Hari Om, "Request based Data Delivery in Video-on Demand Services," *IEEE Trans. on Consumer Electronics*, Vol. 52(4), pp. 1318-1324, 2006.
46. Satish Chand and Hari Om, "Seamless Channel Transition for Cautious Harmonic Scheme in Video Data Broadcasting," *IEEE Trans. on Cons. Electronics*, Vol. 52(3), pp.719-725, 2006.
47. Satish Chand and Hari Om, "Generalized Conservative Staircase Data Broadcasting Protocol for Video-on-Demand," *IEEE Trans on Consumer Electronics*, Vol. 52(2), pp. 363-370, 2006.
48. Satish Chand and Hari Om, "Modified Polyharmonic Data Broadcasting Scheme for Popular Videos," *IEEE Transactions on Consumer Electronics*, Vol. 51(4), pp. 1153-1158, Nov. 2005.
49. Satish Chand and Hari Om, "Seamless Channel Transition Using Bespoke Broadcasting Scheme for Video-On-Demand Service," *IEEE Transactions on Consumer Electronics*, Vol. 51(4), pp. 1313-1318, Nov. 2005.
50. Satish Chand and Hari Om, "Modified Bespoke data broadcasting scheme for popular videos", *IEEE Transactions on Consumer Electronics*, Vol. 49(4), pp. 1378-1382, Nov., 2003.
51. Satish Chand and Hari Om, "Buffer Evaluation in Variable Bandwidth Channelization for Videos", *IEEE Transactions on Consumer Electronics*, vol. 49(2), pp. 354-358, May, 2003.
52. Satish Chand and Hari Om, "Bespoke data broadcasting scheme for popular videos", *IEEE Transactions on Consumer Electronics*, Vol. 49(1), pp. 193-197, Feb. 2003.
53. Satish Chand and Hari Om, "Modified staircase data broadcasting scheme for popular videos", *IEEE Transactions on Broadcasting*, Vol. 48(4), pp. 274-280, Dec. 2002.

#### **Accepted/Published in Conferences**

54. Manju and Satish Chand, "Improved-Coverage Heuristic in Wireless Sensor Networks," *International Conf on Signal Processing and Communication*, Jaypee Institute of Information Technology, Noida, Dec 26-28, 2016, accepted.

55. Saurabh Agarwal and Satish Chand, "Image Forgery Detection using Texture Descriptors", Proc. of International Conf on Modern Mathematical Methods and High Performance Computing in Science and Technology, RKGIT, Ghaziabad, Sept. 27-29, 2015
56. Saurabh Agarwal and Satish Chand, "Image Tempering detection using Local Phase based Operator", Proc. of International Conf. on Emerging Trends in Electrical, Electronics,& Sustainable Energy Systems, KNIT Sultanpur, March 11-12, 2016.
57. Rajeev Kumar, Satish Chand and Samayveer Singh, "A high capacity Email based text steganography scheme using Huffman compression", CICT2015 (Accepted)
58. Samayveer Singh, Satish Chand and Bijendra Kumar, "Optimum Deployment of Sensors in WSNs," 2nd IEEE Int. Conf. on Information Systems and Computer Networks (ISCON-2014), pp. 113 – 117, 1-2 March 2014.
59. Samayveer Singh, Satish Chand and Bijendra Kumar, "A 4-Stage Heterogeneous Network Model in WSNs," 3rd IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI-2014), pp. 2191 – 2195, 24th - 27th Sept. 2014.
60. Samayveer Singh, Satish Chand, and Bijendra Kumar, "An energy efficient clustering protocol with fuzzy logic for WSNs The Next Generation Information Technology Summit 5th International Conference (Confluence), 2014, pp. 427- 431 25th - 26th Sept. 2014.
61. Rajeev Kumar, Satish Chand, and Samayveer Singh, "An Email based high capacity text steganography scheme using combinatorial compression," 5th International Conference The Next Generation Information Technology Summit (Confluence), 2014– pp. 336 - 339
62. Samayveer Singh, Satish Chand, Rajeev Kumar and Bijendra Kumar, "A Heterogeneous Network Model for Prolonging Lifetime in 3-D WSNs" 4th International Conf. CONFLUENCE 2013: The Next Generation Information Technology Summit, 26 - 27 Sept. 2013.
63. Rajeev Kumar and Satish Chand, "A New Image Steganography Technique Based on Similarity in Secret Message", 4th International Conference CONFLUENCE 2013: The Next Generation Information Technology Summit 26th - 27th Sept. 2013.
64. Samayveer Singh, Satish Chand, and Bijendra Kumar, "3-Tier Heterogeneous Network model for Increasing Lifetime in Three Dimensional WSNs," 3rd IEEE International Advance Computing Conference (IACC), 2013, AJKEC, Ghaziabad, pp. 1051 – 1054, Feb. 20-22, 2013.
65. Samayveer Singh, Satish Chand, and Bijendra Kumar, "3-Tier Heterogeneous Network model for Increasing Lifetime in Three Dimensional WSNs," 9th International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness, Gautam Buddha University, Noida, Jan 11-12, 2013.
66. Kapil Dev and Satish Chand, "Layered Mixed Media Painting," International Conference on Computer and Communications Technology (ICCCT-2010), pp. 242-247, 2010



67. Bijendra Kumar and Satish Chand, "Adaptive Channel Allocation Algorithm for Video Delivery," International Conference on Computer and Communications Technology (ICCCT-2010), pp. 383-386, 2010
68. Sandeep Kumar and Satish Chand, "A New Method for Reverse Prediction of MPEG frames in Video Streaming," IEEE International Conf. on Advance Computing (IACC'09), 6-7 March 2009, Thapar, India, pp. 1119-1123.
69. Hari Om and Satish Chand, "Buffer Storage for Video Delivery," International Conference on Signal Processing, Communications and Networking, Madras Institute of Technology, Anna University, Chennai, Jan. 4-6, 2008, pp. 15-19.
70. Sudeep Kanav and Satish Chand, "Live Video Transmission," International Conference on Signal Processing, Communications and Networking, Madras Institute of Technology, Anna University, Chennai, Jan. 4-6, 2008.
71. Hari Om and Satish Chand, "An Efficient Broadcasting Scheme for video-on-Demand Services," International Conference on Information & Communication Technology (IICT - 2007), Dehradun Institute of Technology, Dehradun, pp. 629-633, July 26-28, 2007.
72. Hari Om and Satish Chand, "Bandwidth Variability in Polyharmonic Scheme," International Conference on Information & Communication Technology (IICT -2007), Dehradun Institute of Technology, Dehradun, pp. 634-637, July 26-28, 2007.
73. Satish Chand and Hari Om, "Phase Estimation in Video Transmission using Hilbert Transform," International Conference on Signal Processing, Communications and Networking, Madras Institute of Technology, Anna University, Chennai, pp. 157-161, Feb. 23-24, 2007.
74. Satish Chand and Hari Om, "Modified Conservative Staircase Scheme for Video Services," International Conference on Signal Processing, Communications and Networking, Madras Institute of Technology, Anna University, Chennai, pp. 608-613, Feb. 23-24, 2007.
75. Satish Chand, DK Lobiyal, and Hari Om, "Enhanced Polyharmonic Broadcasting Scheme for Popular Videos," IEEE International Symposium on Consumer Electronics, Reading, UK, pp. 370-374, 1-3rd Sept. 2004.
76. Satish Chand and Hari Om, "Hybrid data Broadcasting Scheme for Popular Videos", International Conf. on Information Technology: Prospects and Challenges in the 21st Century (ITPC- 2003), vol. 1, pp. 95-100, Katmandu, May, 2003.
77. Satish Chand and Hari Om, "Timely Delivery of video data in staircase Scheme," National Conference on Communications, IIT Kharagpur, pp. 39-43, Feb. 2012
78. Satish Chand and Hari Om, "Determination of Storage Space in Video Applications," National Conference on Communications, IIT Gawahati, pp. 253-256, Feb. 2009.
79. Hari Om and Satish Chand, "Reverse-index Based Broadcasting Scheme," National Conference on Communications, IIT Bombay, Mumbai, pp. 471-475, Feb. 2008.

80. Hari Om and Satish Chand, "Seamless Channel Transition for Modified Bespoke Broadcasting Scheme," National Conference on Communications, Indian Institute of Technology Kanpur, pp. 392-396, Jan. 26-28, 2007.
81. Hari Om, H. Parthasarthy, Bijendra Kumar, and Satish Chand, "Efficient Polyharmonic Data Broadcasting Scheme for Video-on-Demand Services," National Conference on Communications, Indian Institute of Technology Delhi, pp. 290-294, Jan. 2006.
82. Satish Chand and Hari Om, "Enhanced Conservative Staircase Data Broadcasting Protocol For Video On Demand," National Conference on Telecommunication, Indian Institute of Technology Kharagpur, India, pp. 217-221, Jan. 2005.
83. Hari Om and Satish Chand, "Dual Step Function Broadcasting Scheme for Videos", National Conference on Communication 2004, pp. 219-223, IISc, Bangalore, Jan. 30 - Feb. 1, 2004.

***Book Chapter***

84. Samayveer Singh, Satish Chand and Bijendra Kumar, "3-Tier Heterogeneous Network model for Increasing Lifetime in Three Dimensional WSNs," Quality, Reliability, Security and Robustness in Heterogeneous Networks, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol. 115, pp 238-247, 2013.

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