



## **Curriculum Vitae**

### **Prof. Malla Reddy Perati**

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Dr. Malla Reddy Perati

Professor

Department of Mathematics

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#### **I. Academic Positions & Academic Credits**

Principal, Kakatiya University College of Engineering and Technology during May 2016 -Jan 2017.

Head, Department of Mathematics, Kakatiya University during May 2013-September 2015.

Chairman, Board of Studies (BoS) in Mathematics, Kakatiya University, during April 2010 - April 2012.

Coordinator, Internal Quality Assurance Cell (IQAC), University Arts & Science College, Kakatiya University, during November 2012 - September 2013.

#### **Previous Positions/ Academic Programme**

##### **Postdoctoral Research**

Graduate Institute of Communication Engineering, National Taiwan University, Taiwan

Adviser: Prof. Jingshown Wu

Research Area: Network Traffic Modeling and Performance Analysis of Internet Router

Duration: September 2003 to January 2007.

##### **Ph.D. Programme**

Department of Mathematics, Osmania University, Hyderabad, India

Title of Thesis: Dispersion Studies of Waves in Poroelastic Plates and Cylinders

Adviser: Professor M. Tajuddin.

Duration: 1994-1998.

### **M.Phil Program**

Department of Mathematics, Osmania University, Hyderabad, India

Dissertation Title: Calculus of Variational Techniques in Elastostatic Problems

Adviser: Professor Kishan Rao

Duration: 1992-1994.

**1992-1994:** M.Phil (Applied Mathematics), First division with distinction, Osmania University, India.

**1989-1991:** M. Sc. (Mathematics); First division with distinction, Kakatiya University, India.

**1986-1989:** B.Sc. (Mathematics, Physics, Chemistry), First division with distinction, Kakatiya University, India.

### **Fellowships**

1. Post-Doctoral Fellowship received from National Science Council, through Graduate Institute of Communication Engineering, National Taiwan University, Taipei, September 2002 to January 2007.
2. Senior Research Fellowship awarded by Council of Scientific and Industrial Research (CSIR) through UGC-CSIR joint exam NET (National Eligibility Test), January 1996.
3. Junior Research Fellowship awarded by Council of Scientific and Industrial Research through UGC-CSIR joint exam NET (National Eligibility Test), January 1995.

### **Teaching Experience**

1. February 2007 to till date, Department of Mathematics, Kakatiya University, India.
2. Sep. 2002 to Jan. 2007, Graduate Institute of Communication Engineering, National Taiwan University, Taiwan.
3. Dec. 1997 to Nov. 1999, Department of Mathematics, ISS College of Engineering & Technology for Women, Hyderabad, India.
4. 1993 to 1997, Department of Mathematics, Osmania University, Hyderabad, India.

## **II. Industrial Experience**

1. Sept. 2001 to Sept. 2002, Quality Assurance, Consec India Pvt. Ltd, Hyderabad, India (A wholly owned subsidiary of Consec Inc. USA).
2. Sept. 2000 to Sept. 2001, Insurance Analyst, Consec Pvt. Ltd, Hyderabad, India (A wholly owned subsidiary of Consec Inc. USA).

## **III. Research Credits**

### **Major Research Projects (MRPs)**

1. Propagation of waves in cylindrical compact trabecular bone with marrow, funded by University Grants Commission (UGC), Government of India, Grant No. F.No.34-141\2008 (S.R), (Completed, April 2009-March 2012).

2. Performance study of internet router employing partial buffer sharing mechanism under Markovian modeled self-similar variable packet length input traffic, funded by Department of Science and Technology (DST), Government of India, Grant No. SR/S4/MS: 530/08, (Completed, March 2010 – April 2012).

#### **Mentor for Postdoctoral Research Program**

1. Dr. A. Srisailam, D.S. Kothari Postdoctoral Fellowship, UGC, April 2012-April 2015.
2. Dr. Rajitha Gurijala, Women Postdoctoral Fellowship, UGC, November 2015-

#### **Ph.D / M.Tech Programme Guided**

1. L.P. Raj Kumar, Ph.D. Degree awarded in November 2011 from the Department of Mathematics, Kakatiya University.

**Title:** Performance study of Internet router using matrix queueing theory.

2. D. Mallikarjuna Reddy, Ph.D. Degree awarded in February 2012 from the Department of Statistics, Kakatiya University.

**Title:** Performance analysis of Internet router under self-similar variable packet length input traffic - markovian approach.

3. B. Sandhya Rani, Ph.D. Degree awarded in April 2014 from the Department of Mathematics, Kakatiya University.

**Title:** Dispersion studies of wave propagation in poroelastic cylinder and polygonal cross sectional bars with relevance to bone mechanics.

4. Rajitha Gurijala, Ph.D. Degree awarded in August 2014 from the Department of Mathematics, Kakatiya University.

**Title:** Study of vibrations in poroelastic solids using the variants of Biot's theory.

5. D. Rajaiah, Ph.D. Degree awarded in January 2015 from the Department of Mathematics, Kakatiya University.

**Title:** Mathematical modelling and performance analysis of Internet router with differentiated services under self-similar input process.

7. G. Ravi Kumar, Ph. D Degree awarded in December, 2016 from the Department of Mathematics, Kakatiya University.

**Title:** Performance analysis of Internet router under asynchronous self-similar traffic input-Multi server priority based queueing system with Markovian input process and various service time distributions.

6. Manjula Ramagiri, Ph. D Degree awarded in February 2017 from the Department of Mathematics, Kakatiya University.

**Title:** Study of vibrations in prothermoelastic solids in the presence of static stresses.

8. D. Ranadheer, Ph. D Degree awarded in May 2017 from the Department of Mathematics, Kakatiya University.

**Title:** Performance evaluation of Internet router-steady state probability distribution vector of block circulant Markov chains.

9. R. Ramesh, Ph. D Degree awarded in June 2017 from the Department of Mathematics, Kakatiya University.

**Title:** Internet traffic modeling using circulant Markov modulated Poisson process-steady state probability vector of circulant matrices.

10. K. Raghavendra, M.Tech degree awarded in July 2011 from National Institute of Technology Surathkal (NITK).

**Title:** Self-similar behavior of highway road traffic and occupancy analysis at toll Plazas.

### **Editorial Credits**

1. Guest Editor, Special Issue “Continuum Mechanics and Earthquake Seismology”, International Journal of Engineering, Science and Technology (IJEST), jointly with Prof. Amares Chatopadhyay, Indian School of Mines, Dhanbad.

2. Editor, Journal of Physics (Conference Series, 662, 2015, Institute of Physics, UK ), International Conference on Vibration Problems (ICOVP-2015), Feb 18-20, 2015, Jointly organized by Department of Mathematics and Department of Mechanical Engineering, Kakatiya University, and Von-Karman Society, West Bengal.

### **Reviewer for the Journals**

- 1 Reviews of American Mathematical Society (AMS)
- 2 Journal of Sandwich Structures and Materials
- 3 Acta Mechanica
- 4 Journal of Vibration and Control (JVC)
- 5 Journal of Porous Media
- 6 Special Topics and Reviews in Porous Media, an International Journal
- 7 Geophysical Journal International
- 8 International Journal of Communication Systems

### **Research Collaboration**

1. Dr. Shou-Kuo Shao, Network Operation Supporting Technology Lab, Chunghwa Telecommunication Laboratories, Chunghwa Telecom Co. Ltd., Yang-Mei, Taoyuan, Taiwan-326. E-mail: skshao@cht.com.tw

2. Dr. Hari Kishan Reddy Koppula, Managing Director, VR Techniche Pvt Ltd, Noida, New Delhi, India.

3. Visited School of Medicine, New York University, USA and worked with Dr. Ravinder Reddy Regatte, on Bone Mechanics, during May-June, 2012.

4. Visited Indian Institute of Science (IISc), Bangalore under the scheme of Indo French Centre for Applied Mathematics from 10-1-2014 to 31-1-2014.

### **Fellowships**

1. Post-Doctoral Fellowship received from National Science Council, through Graduate Institute of Communication Engineering, National Taiwan University, Taipei, September 2002 to January 2007.
2. Senior Research Fellowship awarded by Council of Scientific and Industrial Research (CSIR) through UGC-CSIR joint exam NET (National Eligibility Test).
3. Junior Research Fellowship awarded by Council of Scientific and Industrial Research through UGC-CSIR joint exam NET (National Eligibility Test).

### **Conferences Organized**

1. Organizing secretary, 5<sup>th</sup> National Conference on Applicable Mathematics in Wave Mechanics and Vibrations (WMVC-2010), held at Kakatiya University, India, during March 13-15, 2010.
2. Director, International Conference on Vibration Problems (ICOVP-2015), held at Kakatiya University during 18-20 February, 2015.

### **Conferences Attended, Presented Papers, and Invited Talks**

1. Presented a Paper in the Third International Conference on Vibration Problems held at University of North Bengal, India, Nov. 1996, (Peer reviewed).
2. Presented a Paper in the National Seminar on Recent Trends and Advances of Mathematics and Statistics in Engineering and Technology, held at Indian School of Mines, Dhanbad, India, Nov. 1997, (Peer reviewed).
3. Attended 44<sup>th</sup> Indian Society of Theoretical and Applied Mechanics (ISTAM) conference held at National Institute of Technology (NIT), Warangal, India, Dec. 1999.
4. Presented a Paper in the Third SIAM (Society for Industrial and Applied Mathematics) on Materials Science, held in Philadelphia, USA, May 2000, (Peer reviewed).
5. Attended International Conference on Non-linear Problems, held at Academia Sinica, Taipei, Taiwan, Dec.2005.
6. Presented a paper in the IEEE High Performance Switching and Routing (HPSR) conference held in New York, USA, May 30-June1, 2007, (Peer reviewed).
7. Indian Society of Theoretical and Applied Mechanics (ISTAM) conference held at National Institute of Technology (NIT), Hamirpur, India, Dec.2010.
8. Delivered invited talk on “Matrix Geometric Solutions”, in Short Term Training Program on Mathematical Modeling and Numerical Techniques, Department of Mathematics, National Institute of Technology, Warangal, 17-21 January, 2011.
9. Delivered invited talk on “General Measure Theory”, in Training Program and Advanced Analysis for PG Faculty, held at Department of Mathematics, Kakatiya University, Warangal, 8-11 April, 2011.

10. Presented a paper in the 4<sup>th</sup> International Conference on Porous Media (INTERPORE-2012), Purdue University, USA, 14-16 May, 2012, (Peer reviewed).
11. Presented a paper in the IEEE International Conference on Networks (ICON-2012), Singapore, 12-14 December, 2012, (Peer reviewed).
12. Chaired a session for “18<sup>th</sup> IEEE International Conference on Networks”, Singapore, 12-14 December, 2012.
13. Delivered invited talk on “Circulant Markov Modulated Poisson Process”, in Workshop on Mathematical Modeling in Engineering, Department of Mathematics, National Institute of Technology, Warangal, India, 4-6 December, 2013.
14. Delivered invited talk on “Plane Stress Problem in Poroelasticity”, in STTP on Contemporary Approaches of Applied Mathematics in Science and Engineering, National Institute of Technology, Warangal, 11-15 May, 2015 India.
15. Chaired a session for “International Conference on Computational Heat and Mass Transfer”, Department of Mathematics, National Institute of Technology, Warangal, November 30 -December 2, 2015.
16. Delivered invited talk on “Steady State Probability Vector of Positive Definite Regularized Linear Systems of Circulant Stochastic Matrices”, on 14-12-2015, NIT Warangal.
17. Delivered invited talk on “Study of Vibrations in Poroelastic Solid Bars with Polygonal Cross Section using Fourier Collocation Method” on 23-12-2015 in 6<sup>th</sup> National Conference on Wave Mechanics and Vibrations Conference (WMVC), ISM Dhanbad.
18. Delivered invited talk on “Biot’s extension theory of porous materials” in the 103<sup>rd</sup> Indian Science Congress held at Mysore University, Jan 3-5, 2016.
19. Resource Person for Refresher Course held at Academic Staff College, Osmania University, Hyderabad, 15<sup>th</sup> February, 2017.
20. Delivered invited talk on “Investigation of Vibrations in Poroelastic Solid Bars with Polygonal Cross Section using Fourier Collocation Method” in 20<sup>th</sup> International Conference of International Academy of Physical Sciences on Recent Advances in Physical Sciences and Future Challenges held at Faculty of Science (Department of Mathematics, Physics and Chemistry), Osmania University, Hyderabad, 14-16 July, 2017.
21. Delivered invited talk on “Internet Router Modeling–Markov Process and Matrix Geometric Solutions” in National Conference on Recent Advances of Mathematical Techniques in Science and Engineering held at Department of Mathematics, Osmania University, Hyderabad, 30-31 July, 2017.

## **IV. Publications**

### **Wave Propagation in Poroelastic Solids**

1. A. Srisailam, A. Yadaiah, P.Malla Reddy, Study of waves in poro and thermoelastic thin plates under plane stress conditions, *Special Topics and Reviews in Porous Media*, Vol.7,3,2016, pp. 221-227.
2. Sandhya Rani B, Malla Reddy P and Shamantha Reddy G, Study of torsional vibrations in transversely isotropic poroelastic cylinders, *Procedia Engineering*, Vol. 127 (2015), pp.462-468, 2015.
3. Rajitha G, Malla Reddy P, Effect of static stress on plane strain vibrations in poroelastic solid cylinder, *Procedia Engineering*, Vol. 127 (2015), pp.727-734, 2015.
4. Manjula R, Malla Reddy P., Three dimensional vibrations of thermoporoelastic solids with two temperatures, *Procedia Engineering*, Vol. 127 (2015), pp.824-829, 2015.
5. B. Sandhya Rani and P. Malla Reddy, Study of torsional vibrations in thick-walled cylindrical bone in the framework of transversely isotropic poroelasticity, *International Journal of Scientific and Innovative Mathematical Research*, 3(1), pp. 79-83, 2015.
6. Ch. Balu, B. Sandhya Rani and P. Malla Reddy, Torsional vibrations of poroelastic thick-walled hollow cylinder in the presence of initial stress, *International Journal of Scientific and Innovative Mathematical Research*, 3(2), pp. 514-518, 2015.
7. B. Sandhya Rani, Ch. Balu and P. Malla Reddy, Study of torsional vibrations in an initially stressed composite poroelastic cylinders, *Journal of Physics: Conference Series* 662(2015), doi:10.1088/1742-6596/662/1/012006.
8. Manjula Ramagiri, P. Malla Reddy, Axially symmetric vibrations in poroelastic solid cylindrical panel resting on elastic foundation, *Journal of Physics: Conference Series* 662 (2015), doi:10.1088/1742-6596/662/1/012007.
9. B. Sandhya Rani, P. Malla Reddy, G. Gangadhar Reddy, Dispersion study of plane strain vibrations in poroelastic solid cylinder with polygonal cross section, *Mathematics and Mechanics of Solids*, doi: 10.1177/1081286515571785.
10. B. Sandhya Rani, A. Srisailam, P. Malla Reddy, Flexural vibrations of finite poroelastic composite cylinders, *Sadhana, Indian Academy of Sciences*, Vol. 40, Part 2, pp. 591–604, 2015.
11. Malla Reddy P, Rajitha G., Investigation of torsional vibrations of thick-walled hollow poroelastic cylinder using Biot's extension theory, *Sadhana, Indian Academy of Sciences*, Vol. 40, Part 6, pp. 1925-1935, September 2015.
12. P. Malla Reddy, B. Sandhya Rani, Study of radial vibrations in cylindrical bone in the framework of transversely isotropic poroelasticity, *Journal of Vibration and Control*, Published online before print June 25, 2014, doi: 10.1177/1077546314536595.
13. Rajitha Gurijala, Srisialam Aleti, Malla Reddy Perati., Flexural vibrations of poroelastic solids in the presence of static stresses, *Journal of Vibration and Control*, Vol. 21(11), pp. 2266-2272, 2015.

14. Manjula R., Rajitha G., Srisailam A., Malla Reddy P., Flexural vibrations of poroelastic solid cylinder in the presence of static stress. *Special Topics and Reviews in Porous Media*, 6, 1-9, 2015.
15. Rajitha G, Malla Reddy P., Investigation of flexural vibrations in poroelastic elliptic cone, Elsevier Proceedings of ICMS-2014 held at Chennai, pp. 340-344, ISBN-978-93-5107-261-4, 2014.
16. Rajitha Gurijala, Malla Reddy Perati, Axially symmetric vibrations of composite poroelastic spherical shell, *International Journal of Engineering Mathematics*, 2014.
17. B. Shankar, C.N. Nath, S.A. Shah, P.M. Reddy, Vibrations in a fluid-loaded poroelastic hollow cylinder surrounded by a fluid in plain strain form, *International Journal of Applied Mechanics and Engineering*, 18, 1, pp. 189-216, 2013.
18. G.Rajitha, B. Sandhya Rani, Malla Reddy Perati, Plane strain vibrations of poroelastic elliptic cone, *Special Topics and Reviews in Porous Media*, 3,2, pp.157-168, 2012.
19. B. Sandhya Rani, T. Ramesh, P. Malla Reddy, Effect of normal stress under an excitation in poroelastic flat slabs, *International Journal of Engineering, Science and Technology*, Vol. 3, No.2, pp. 96-103, 2011.
20. Malla Reddy Perati, Sandhya Rani B., Tajuddin M., Dispersion study of axially symmetric waves in cylindrical bone filled with marrow, *International Journal of Biomathematics*, Vol. 4(1), pp. 109-118, 2011.
21. Malla Reddy Perati, Tajuddin M., Axially symmetric vibrations of poroelastic composite cylinder in the context of fretting fatigue, *Special Topics and Reviews in Porous Media*, Vol. 1(4), pp. 311-320, 2010.
22. Malla Reddy Perati, M. Tajuddin, Cylindrical stress waves in poroelastic flat slabs, *The Journal of Mechanics*, Vol.22, No.2, pp. 161-165, 2006.
23. Malla Reddy Perati, M. Tajuddin, Edge waves in poroelastic plates under plane stress conditions, *Journal of Acoustical Society of America*, 114, pp.185-193, 2003.
24. Malla Reddy Perati, M Tajuddin, Exact analysis of plane-stress vibrations of thick-walled hollow poroelastic cylinders, *International Journal of Solids and Structures*, 37, pp. 3439-3456, 2000.
25. Malla Reddy Perati, M Tajuddin, Wave propagation for cylindrical bore in poroelastic solid, *Mathematics and Statistics in Engineering and Technology*, Narosa, pp. 47-51, 1999.
26. Malla Reddy Perati, M Tajuddin, Edge waves in poroelastic plates, *Proceedings of Third International Conference on Vibration Problems (III ICOVP-1996)*, University of North Bengal, India, pp.92-94, 1996.

### **Internet Traffic Modeling and Performance Analysis of Router**

27. D. Ranadheer, D. Rajaiah, P. Malla Reddy, Block Traingular and Skew Symmetric Splitting Method for Steady State Vector of Linear System of Ergodic Block Circulant



Markov Chains, *Int. Journal of Computing Science and Mathematics*, Inder Science Publishers, Vol. 8, 4, 2017.

28. G. Ravi Kumar, L.P. Raj Kumar, P. Malla Reddy, Loss Behavior Analysis of Asynchronous Internet Router under Self-Similar Traffic Input using MMPP/PH/C/K Queueing System Employing PBS Method, *Int. J. Communication Networks and Distributed Systems*, Vol. 19,3, pp. 257-269, 2017.

29. G. Ravi Kumar, Malla Reddy Perati, Loss Behavior Internet Router with Priority Based Self-Similar Synchronous Traffic –Multi Server Queueing System with Markovian Input, Published online before print, *OPSEARCH*, Springer, Vol..54, 2, pp. 283-305, 2017.

30. Rajaih Dasari, Raj Kumar L.P. Malla Reddy Perati, Steady State Probability Vector of Positive Definite Regularized Linear Systems of Circulant Stochastic Matrices, *Linear and Multilinear Algebra*, Taylor and Francis, Published online before print, May 2016.

31. R. Ramesh, D. Rajaiah, P. Malla Reddy, Internet Router Modeling using Circulant Markov Modulated Poisson Process - Impact of Fractal Onset Time (FOT), *OPSEARCH*, Springer, Vol. 53, 2, pp. 317-328, 2016.

32. D. Mallikarjuna Reddy, D. Rajaiah, P. Malla Reddy, M. Krishna Reddy, Delay Behavior of Internet Router under Self-Similar Traffic via Rational Approximations, *Int. J. Communication Networks and Distributed Systems*, Vol. 14, No. 2, pp.134-144, 2015.

33. D. Rajaiah and P. Malla Reddy, Stability Criteria of the State Probability Vector of Circulant Markov Chains - Chapman-Kolmogorov Differential Equations, Elsevier Proceedings of ICMS-2014 held at Chennai, ISBN-978-93-5107-261-4, pp. 836-839, 2014.

34. G. Ravi Kumar, L.P. Raj Kumar, P. Malla Reddy, Priority Based Performance Analysis of Optical Packet Switch under Asynchronous Self-Similar Variable Length Packet Traffic Input with Voids, Elsevier Proceedings of ICMS-2014 held at Chennai, ISBN-978-93-5107-261-4, 2014.

35. G. Ravi Kumar, P. Malla Reddy, Priority Based Performance Analysis of Optical Packet Internet Switch under Asynchronous Self-Similar Variable Length Packet Traffic Input with Voids, *Fractals, Wavelets, and their Applications*, Springer Proceedings in Mathematics & Statistics, DOI 10.1007/978-3-319-08105-2-27, © Springer International Publishing, Switzerland 2014, vol.92, pp. 413-425.

36. D. Rajaiah, R. Ramesh, P. Malla Reddy, Self-Similar Network Traffic Modelling using Fractal Point Process-Markovian Approach, *Fractals, Wavelets, and their Applications*, Springer Proceedings in Mathematics & Statistics, DOI 10.1007/978-3-319-08105-2-27, © Springer International Publishing, Switzerland 2014, Vol.92, pp. 413-425.

37. D. Ranadheer, R. Ramesh, D. Rajaiah, and P. Malla Reddy, Self-Similar Network Traffic Modelling using Circulant Markov Modulated Poisson Process, *Fractals, Wavelets, and their Applications*, Springer Proceedings in Mathematics & Statistics, DOI 10.1007/978-3-319-08105-2-27, © Springer International Publishing, Switzerland 2014, Vol.92, pp. 437-444.

38. R. Ramesh, D. Rajaiah, D. Ranadheer, and P. Malla Reddy, Validation of Variance Based Fitting for Self-Similar Network Traffic, *Fractals, Wavelets, and their Applications*, Springer Proceedings in Mathematics & Statistics, DOI 10.1007/978-3-319-08105-2-27, © Springer International Publishing, Switzerland 2014, Vol.92, pp. 427-435.
39. Ranadheer, D., Ramesh, R., Rajaiah, D., and Malla Reddy. P., Study of Delay and Loss Behavior of Internet Router- Markovian Modelling using Circulant Markov Modulated Poisson Process (CMMPP), *Applied Mathematics*, 2014, Vol 5(3), pp 512-519.
40. Ranadheer Donthi, Ramesh Renukunta, Rajaiah Dasari and Malla Reddy Perati, Performance Analysis of Internet Switch with Variable Length Packet Input Traffic using Circulant Markov Modulated Poisson Process (CMMPP), 978-1-4799-6896-1/14@ IEEE..
41. Rajaiah, D., and Malla Reddy, P. Loss Behavior of an Internet Router with Self-Similar Input Traffic via Fractal Point Process, *Proceedings of IEEE ICON-2013 held at Singapore, December 11-13*, 978-1-4799-2084-6/13.
42. Sampath Kumar, K., and Malla Reddy, P., Adilakshmi, T., Performance Analysis of WDM OPS with a Space Priority Mechanism under Self-Similar Variable Length Packet Traffic, *Proceedings of IEEE ICON-2013 held at Singapore, December 11-13*, 978-1-4799-2084-6/13.
43. Kumar K.S., Perati, M.R., Adilakshmi T., Performance study of WDM OPS employing tunable converter sharing under self-similar variable length packet traffic, *Proceedings, 18<sup>th</sup> IEEE International Conference on Networks (ICON-2012)*, pp. 114-119, 12-14 Dec., 2012, Singapore.
44. Sampath Kumar K., Malla Reddy P., Adilaxmi T., Modelling and Analysis of WDM OPS Employing Tunable Converter Sharing under Self-Similar Variable Length Packet Traffic, *International Journal of Information and Communication Technology Research*, 2, 11, pp. 813-819, Nov.2012.
45. Malla Reddy Perati, Raghavendra Kesannagari, Hari Kishan Reddy Koppula, Mallikarjuna Reddy Doodipala, Rajaiah Dasari, Self-Similar Behavior of Highway Road Traffic and Occupancy Analysis at Toll Plazas, *ASCE's Journal of Transportation Engineering*, 138, 10, pp.1233-1238, 2012.
46. Malla Reddy Perati, L.P. Raj Kumar, D.Mallikarjun Reddy, Approximate Markovian Model for Delay Behavior of Internet Router under Self – Similar Traffic Input, *Journal of Interdisciplinary Mathematics*, Vol. 14,3, pp. 321-329, 2011.
47. D. Mallikarjuna Reddy, L.P. Raj Kumar, Malla Reddy Perati, Approximate Modeling for Delay Behavior of the Switch under Self-Similar Variable Length Packet Input Traffic, *IAENG Transactions on Engineering Technologies, AIP Special Edition of the World Congress on Engineering and Computer Science – 2010*, Vol.1373, pp.113-122, 2011.
48. Malla Reddy Perati, L.P.Raj Kumar, D.Mallikarjun Reddy, K. Sampath Kumar, Performance Analysis of Internet Router Employing Partial Buffer Sharing Mechanism

- under Markovian Modelled Self-Similar Variable Packet Length Input Traffic, International Journal of Pure & Applied Mathematics, Vol. 67, 4, pp. 407-421, 2011.
49. L.P Raj Kumar, K. Sampath Kumar, D. Mallikarjuna Reddy, Malla Reddy Perati, Analytical Model for Loss and Delay Behavior of the Switch under Self-Similar Variable Length Packet Input Traffic, IAENG International Journal of Computer Science, Vol. 38(1), 2011.
  50. L.P Raj Kumar, K. Sampath Kumar, D. Mallikarjuna Reddy, Malla Reddy Perati, Analytical Model for Performance Study of Switch under Self-Similar Variable Length Packet Traffic, Vol.1, Lecture Notes on Engineering and Computer Science, WCES-2010, 20-22 Oct. 2010, IAENG, San Francisco, USA, pp. 243-247, ISBN: 978-988-17012-0-6.
  51. Malla Reddy Perati, L.P.Raj Kumar, Sampath Kumar K, Shou-Kuo Shao, Analytical model for the Switch Handling Self-Similar Traffic With Variable Packet Length, Proceedings of IEEE ICON-2008.
  52. Malla Reddy Perati, Chih-How Chang, Shou-Kuo Shao and Jingshown Wu, An Efficient Approximate Markovian Model for Optical Packet Switches Employing Partial Buffer Sharing Mechanism under Self-Similar Traffic Input, Proceedings of IEEE HPSR-2007 held at Polytechnic University, Brooklyn, New York, USA, May 30-June1, ISBN: 1-4244-1206-4, IEEE Catalog number: 07EX1775C.
  53. Chun-Yang Chen, Chih-How Chang, Malla Reddy Perati, Shou-Kuo Shao, and Jingshown Wu, Performance Analysis of WDM Optical Packet Switches Employing Wavelength Conversion under Markovian Modeled Self-Similar Traffic Input, Proceedings of IEEE HPSR-2007 held at Polytechnic University, Brooklyn, New York, USA, May 30-June1, ISBN: 1-4244-1206-4, IEEE Catalog number: 07EX1775C.
  54. Chih-How Chang, Shou-Kuo Shao, Malla Reddy Perati and Jingshown Wu, Performance Study of Various Packet Scheduling Algorithms for Variable-Packet- Length Feedback Type WDM Optical Packet Switches, Proceeding of IEEE HPSR- 2006.
  55. Chih-How Chang, Meng –Guang Tsai, Shou-Kuo Shao, Hen-Wai Tsao, Malla Reddy Perati and Jingshown Wu, An Efficient Void Filling Algorithm for WDM Optical Packet Switches Operating under Variable –Packet- Length Self-Similar Traffic, IEICE Trans. Commun., Vol.E88-B, No.12, December 2005.
  56. Shou-Kuo Shao, Chih-How Chang, Paruvelli Sreedevi, Malla Reddy Perati and Jingshown Wu, Partial Buffer Sharing Strategies in Feedback type WDM Optical Routers under Asynchronous and Variable Packet Length Traffic, Technical Digest, 6A3-4, OECC-2005.
  57. Shou-Kuo Shao, Malla Reddy Perati, Meng-Guang Tsai, Hen- Wai Tsao and Jingshown Wu, Generalized Variance –Based Fitting for Markovian Type Self-Similar Traffic Modeling, IEICE Trans. Commun., Special Issue on Internet Technology –V, Vol. E88-B, No.4, April, 2005.
  58. Shou-Kuo Shao, Meng-Guang Tsai, Hen- Wai Tsao, Paruvelli Sreedevi, Malla Reddy

Perati and Jingshown Wu, Performance Evaluation of Feedback Type WDM Optical Routers under Asynchronous and Variable Packet Length Self-Similar Traffic, IEICE Trans. Commun., Vol. E88-B, No.3, March, 2005.

59. Shou-Kuo Shao, Meng-Guang Tsai, Hen- Wai Tsao, Paruvelli Sreedevi, Malla Reddy Perati and Jingshown Wu, Sensitivity Analysis of the Effect of Re-circulated Ports and Re-circulation Limits on Feedback Type WDM optical Routers under Asynchronous and Variable Packet Length Self-Similar Traffic, Technical Digest, 13A2-4, OECC-2004.

60. Chih-How Chang, Shou-Kuo Shao, Malla Reddy Perati and Jingshown Wu, Performance Study of Wavelength Scheduling Strategies for Feedback Type Optical Packet Switches under Slotted and Variable Length Self-similar Traffic, Technical Digest, 13A2-6, OECC-2004.