



**Dr. V. Saminadan**  
**B.Tech.,M.Tech.,Ph.D., MISTE, MIEEE**  
**ASSOCIATE PROFESSOR**

**Dr V. Saminadan**

Professor

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Date of birth: 26-08-1970

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**EDUCATIONAL DETAILS**

**1) Course: Doctor of Philosophy (2006)**

*Specialisation:* Optical Networks

*Faculty/ Institution:* Information and Communication Engineering

*University:* Anna University, Chennai, India

**2) Course: Master of Technology (ECE) (1994)**

*Faculty/ Institution:* Dept. of ECE, Pondicherry Engineering College

*University:* Pondicherry University, India

**3) Course: Bachelor of Technology (ECE) (1992)**

*Faculty/ Institution:* Dept. of ECE, Pondicherry Engineering College

*University:* Pondicherry University, India

## **WORKING EXPERIENCE**

- 1) **Position:** Lecturer  
**Organisation:** Department of ECE, Pondicherry Engineering College  
**Period:** August 1995 to August 2000
- 2) **Position:** Senior Lecturer.  
**Organisation:** Department of ECE, Pondicherry Engineering College  
**Period:** August 2000 to October 2005
- 3) **Position:** Assistant Professor  
**Organisation:** Department of ECE, Pondicherry Engineering College  
**Period:** October 2005 to Oct 2008
- 4) **Position:** Associate Professor  
**Organisation:** Department of ECE, Pondicherry Engineering College  
**Period:** October 2008 – October 2011
- 1) **Position:** Professor  
**Organisation:** Department of ECE, Pondicherry Engineering College  
**Period:** October 2011 – till date

## **RESEARCH GUIDANCE**

- Total Number of Ph.D Scholars presently being guided : 07
- Research areas: Wireless Communication, Optical Networks, VLSI design

## LIST OF PUBLICATIONS

### **JOURNALS**

1. **V. Saminadan** and M. Meenakshi, "Optimal Wavelength converter Placement in Wavelength-Routed Optical Networks," Journal of Optics , Vol. 33, No. 1, pages 1-11 , Jan-March, 2004.
2. **V. Saminadan** and M. Meenakshi, "Dynamic lightpath establishment in WDM optical networks under the constraints of transmission impairments," Journal of Optics, Vol. 35, No. 2, pages 78-100, April-June, 2006.
3. **V. Saminadan** and M. Meenakshi, "Wavelength conversion and inband crosstalk in WDM optical networks", Journal of Optics, Springer, Vol.38, No.3, pp.131-148, Sept, 2009.
4. **V. Saminadan**, "Crosstalk performance of WDM optical networks under different routing and wavelength assignment algorithms", International Journal of Computer applications in Engineering, Technology and Science, Vol.2, No.1, pages 56-59, Oct 2009.
5. **V. Saminadan** and D. Saraswady, "Dynamic wavelength routing in WDM Optical Networks limited by linear crosstalk and stimulated Raman scattering", International Journal of Computer applications in Engineering, Technology and Science, Vol.2, No.1, pages 60-63, Oct 2009.
6. S.Fouziya Sulthana, D. Saraswady, **V. Saminadan**, " Delay and Throughput analysis of scheduling algorithms for QoS requirements in WiMAX", CiiTInternational Journal of Wireless Communications, Vol.2, pages 145-150, July 2010.
7. D. Saraswady, S.Thamizharasan and **V. Saminadan**, "Performance analysis of stream control transmission protocol in heterogeneous wireless networks", Advances in Wireless and Mobile communications, Vol.3, pages 225-236, 2010.
8. **V. Saminadan** and D. Saraswady, "Signal quality considerations for dynamic connection provisioning in survivable WDM optical networks", International Journal of Networks and applications, Vol.3, No.1, pages 15-27, 2012

9. S.Thamizharasan, **D.saraswady**, **V.Saminadan**, “Periodicity based Cyclostationary Spectrum Sensing in Cognitive Radio Networks”, International Journal of Computer Applications, .vol.68, Jan.2013,pp.6-9.

## CONFERENCES

1. **V. Saminadan** and M. Meenakshi, “Optimal Wavelength converter Placement in Wavelength-Routed Optical Networks by simulated annealing ,” Proceedings of the Eleventh International conference on Advanced Computing and Communication (ADCOM 2003), held at PSG College of Tech, Coimbatore, during December 17-20, 2003 (attended and presented) .
2. J.Sofi Jebasundarm, **V. Saminadan** and Dr. M. Meenakshi “Optimal splitting node placement for multicasting in WDM optical networks,” Proceedings of the National conference on Advances in Electronic Communications (ADELCO 2004), pages 114-122, during June 3-4, 2004.
3. **V. Saminadan** and M. Meenakshi, “Dynamic Routing and wavelength assignment with signal quality considerations for wavelength-routed optical networks,” Proceedings of the First IEEE/IFIP International conference on wireless and optical communication networks (WOCN’04), pages 106-109, held at Sultan Qaboos University, Muscat, during June 7-9, 2004.
4. **V. Saminadan** and M. Meenakshi, “A fast and accurate approach to the solution for signal gain in erbium doped fiber amplifiers,” Proceedings of the First IEEE/IFIP International conference on wireless and optical communication networks (WOCN’04), pages 216-219, held at Sultan Qaboos University, Muscat, during June 7-9, 2004.
5. **V. Saminadan** and M. Meenakshi, “Signal quality considerations for dynamic lightpath establishment in wavelength-routed optical networks,” Proceedings of the conference on Distributed processing and networking (DPN’04), pages 87-91, held at IIT Kharagpur, during June 11-13, 2004 (attended and presented).

6. **V. Saminadan** and M. Meenakshi, "Comparison of simulated annealing algorithm with genetic algorithm for optimal wavelength converter placement in wavelength-routed optical networks," Proceedings of the conference on Distributed processing and networking (DPN'04), pages 101-105, held at IIT Kharagpur, during June 11-13, 2004 (attended and presented).
7. **V. Saminadan** and M. Meenakshi, "BER based dynamic routing and wavelength assignment for wavelength-routed optical networks," Proceedings of the Seventh international conference on Optoelectronics, Fiber optics and Photonics (PHOTONICS'04), organized by Cochin University of Science and Technology, Cochin, during Dec 9-11, 2004 (attended and presented).
8. **V. Saminadan**, A.V. Ramprasad and M. Meenakshi, "Dynamic lightpath establishment in WDM optical network in the presence of nonlinear crosstalk," Proceedings of the National conference on Advances in Electronic Communications (ADELCO 2005), pages 295-303, during April 18-19, 2005.
9. **V. Saminadan** and M. Meenakshi, "Impact of routing and wavelength assignment algorithms on the crosstalk performance of WDM optical networks," Proceedings of the National conference on Signals, systems and communications (NCSSC'05), organized by Anna University, Chennai, June, 2005 (attended and presented).
10. S. Skylakha, **V. Saminadan** and M. Meenakshi, "Design protection for WDM optical networks using simulated annealing algorithm," Proceedings of the National conference on Signals, systems and communications (NCSSC'05), organized by Anna University, Chennai, June, 2005.
11. **V. Saminadan**, A.V. Ramprasad and M. Meenakshi, "Dynamic routing and wavelength assignment in the presence of stimulated Raman scattering in WDM optical networks," International conference on Optics and optoelectronics (ICOL 2005), organized by the Optical Society of India during Dec. 2005.
12. **V. Saminadan** and M. Meenakshi, "Physical security approaches for information assurance in WDM optical networks," International Conference on Information security (ICIS), Pondicherry Engineering college, pages 325-331, Dec 2005 (attended and presented) .

13. S. Skylakha, **V. Saminadan** and M. Meenakshi, "Design protection for physical security of data in WDM optical networks," International Conference on Information security (ICIS), Pondicherry Engineering college, pages 296-300, Dec 2005.
14. **V. Saminadan** and M. Meenakshi, "In-band crosstalk performance of WDM optical networks under different routing and wavelength assignment algorithms," Lecture notes in computer Science, Springer Verlag, LNCS 3741, pp. 150-170 (attended and presented at IWDC 2005).
15. **V. Saminadan** and M. Meenakshi, "Impact of linear and nonlinear impairments on the teletraffic performance of WDM optical networks," Third IEEE Conference on Wireless and optical communication networks (WOCN'06).
16. **V. Saminadan** , "Impact of RWA algorithms on the crosstalk effects of WDM optical networks," International conference on recent advances in Electrical sciences, pages 265-275, held at KSR College of Engineering, Tamilnadu, Jan 2010.
17. **V. Saminadan** and S. Saminadhen , "Wireless and Optical networks security," International conference on 4G Wireless Computer networks", pages 103-108, held at Kamban Engineering College, Tamilnadu, March 2011.
18. U. Sampth kumar, **V. Saminadan** and P. Williams, "Performance evaluation of mm wave and UWB signals over fiber radio networks", AICTE sponsored International Conference on Communication and signal processing, pages 106-109 , held at Adhiparasakthi Engg. College, Tamilnadu, April 2012, (available in IEEEExplore).
19. Anu Sam and **V. Saminadan** , "Power Aware Algorithms for Provisioning Green Connections in Optical Networks", Proceedings of IEEE International Conference on Communication and signal processing, held at Adhiparasakthi Engg. College, Tamilnadu, April 2013.
20. S. Prabavathi and **V. Saminadan** , "Impairment aware provisioning Algorithms in All-Optical Networks", Proceedings of IEEE International Conference on Communication and signal processing, held at Adhiparasakthi Engg. College, Tamilnadu, April 2013.

21. A. Arokiamarie Johnsi and **V. Saminadan** , “Performance of Diversity Combining Techniques for FSO-MIMO system”, Proceedings of IEEE International Conference on Communication and signal processing, held at Adhiparasakthi Engg. College, Tamilnadu, April 2013.
22. A. Arokiamarie Johnsi and **V. Saminadan**, “Performance of Diversity Techniques for FSO-MIMO system”, AICTE National Conference on Green Technology Concepts for bridging the digital divide using ICT, Pondicherry Engg. College, July 2013.
23. Anu Sam and **V. Saminadan**, “Weighted Power Aware lightpath routing for provisioning Green Connections in Optical Networks”, AICTE National Conference on Green Technology Concepts for bridging the digital divide using ICT, Pondicherry Engg. College, July 2013.
24. S. Prabavathi and **V. Saminadan**, “Impairment aware provisioning Algorithms for Optical Networks with regeneration”, AICTE National Conference on Green Technology Concepts for bridging the digital divide using ICT, Pondicherry Engg. College, July 2013.
25. R.Karthick and V. Saminadan, “Test data reduction using LFSR reseeding technique in benchmark circuits”, International Journal of Engineering research and Technology , ICSEM 2013 proceeding , July 2013
26. G.SathishKumar, **V. Saminadan** and S.Ravi, “VLSI Implementation of low power b bit DSP processor”, International Journal of Engineering research and Technology , ICSEM 2013 proceeding , July 2013
27. K. Sathish, S. Srinivasan and **V. Saminadan**, “Energy Saving Scheduling for LTE-A Network”, Proceedings of National Conference on Recent Trends in Intelligent and Distributed Technologies, March 2014.
28. S. Srinivasan, K. Sathish, and **V. Saminadan**, “Performance Evaluation of Relay Site Planning”, Proceedings of IEEE International Conference on Communication and signal processing, held at Adhiparasakthi Engg. College, pp. 1472- 1476, April 2014.

29. P. Ponni shanmuga Priya and **V. Saminadan**, “Performance Analysis of WiMAX based Smart Grid Communication Traffic Priority Model”, Proceedings of IEEE International Conference on Communication and signal processing, held at Adhiparasakthi Engg. College, pp. 1492- 1496, April 2014.

### **SHORT TERM COURSES ATTENDED**

1. Telematics short term course on “Broadband networks”, Telematics Group, **IIT Kanpur**, Dec 2-13, 1996
2. AICTE/ ISTE course on “Computers in Biomedical Applications”, **PES college of Engg, Mandya**, April 21- May 03, 1997
3. “Intensive course in Telematics”, Telematics Group, **IIT Delhi**, Dec 16-26, 1997
4. AICTE/ ISTE course on “Recent trends in advanced material Science”, **Pondicherry Engg. College**, Dec 10-24, 1998
5. AICTE/ ISTE course on “Advanced Java Programming”, **PSG College of Tech, Coimbatore**, Dec 13-24, 1999
6. AICTE/ ISTE course on “Recent trends in Compute graphics and vision methodology”, **Pondicherry Engg. College**, May 14-25, 2001
7. QIP Short term course on “Computer hardware and networking”, July 18-22, 2005 **NITTR**, Chennai.
8. QIP Short term course on “Medical electronics”, **NITTR**, Chennai, Aug 1-5, 2005
9. ISTE course on “Broadband solutions for last mile connectivity”, **Pondicherry Engg. College**, Dec 4-8, 2006
10. One day workshop on “Optical Communication and network Design”, jointly organized by **CIT, Coimbatore and Rsoft (USA)**, Feb 4, 2008
11. ISEA sponsored course on “Information Security”, **Pondicherry Engg. College**, June 1-12, 2009
12. AICTE course on “Recent trends in parallel and distributed systems”, **Pondicherry Engg. College**, Nov. 16-27, 2009



13. AICTE course on “Smart operation and control of electrical machines and power systems”, **Pondicherry Engg. College**, June 2-12, 2010
14. ISEA sponsored course on “Recent Trends in Information Security’, **Pondicherry Engg. College**, Nov 29-Dec 10, 2010
15. CDAC two days course on “Open system software”, March 1-2, 2011
16. AICTE course on “Computational intelligence to power system analysis, control and optimization”, organized by **Pondicherry Engg. College**, June 6-10, 2011
17. AICTE course on “Design of Embedded systems: Issues and challenges”, **Pondicherry Engg. College**, April 16-27, 2012
18. Attended the First NKN annual workshop organized by NIC and IIT Bombay held at **IIT Bombay**, 31/10/2012 to 2/11/12
19. TEQIP FDP on “Emphasis on smart operation and control of power markets using power electronic components”, Pondicherry Engg. College, Nov 19-23, 2012
20. TEQIP FDP on “Recent trends in measurement and automation”, Pondicherry Engg. College, Dec 10-14, 2012
21. ISTE-SRM STTP on “Recent advances in Microelectronics for wireless communication”, Pondicherry Engg. College, May 6-11, 2013

### **GUEST LECTURES DELIVERED**

1. “Routing in Optical Networks”, delivered to Engg. College teachers in **AICTE-ISTE** course on Network Routing Algorithms, Mepco Schlenk Engg. College, Sivakasi, on 15<sup>th</sup> Nov 2006
2. “Fundamentals of Optical Communication”, delivered to Engg. College teachers in **AICTE-ISTE** course on Recent Trends in All-Optical networks, Pondicherry Engg. College, on 27<sup>th</sup> Nov 2006
3. “Physical layer impairments”, delivered to Engg. College teachers in **AICTE-ISTE** course on Recent Trends in All-Optical networks, Pondicherry Engg. College, on 28<sup>th</sup> Nov 2006

4. “Discrete event simulation for Optical Networks”, delivered to Engg. College teachers in Research challenges in wireless and optical networks, **Anna University, Chennai**, on 30<sup>th</sup> March 2007
5. “Physical layer issues in Optical networks”, delivered in **AICTE sponsored** National seminar on Advances in Optical networks, Sri Manakula Vinayagar Engg. College, Pondicherry, July 2007
6. “Design Issues in Optical Communication Networks”, delivered to Engg. College teachers in one day Seminar on Recent trends in Communication Technologies, Velammal College of Engg and Tech, Madurai, on 17<sup>th</sup> Dec 2007
7. “Speech coders”, delivered to Engg. College/Polytechnic teachers in AICTE-ISTE course on Multimedia Signal Processing and Communications, Pondicherry Engg. College, May 2008
8. “Optical Networks – Overview and recent developments”, delivered to Engg. College/Polytechnic teachers in AICTE-ISTE course in All-Optical networks, National Engg. College, Kovilpatti, on 26<sup>th</sup> May 2008
9. “Hybrid optical/wireless networks”, delivered to Engg. College teachers in Two days national workshop on Optical communication and networking, MIET Engineering College, Tiruchirapalli, 2<sup>nd</sup> Sept 2010
10. “Fundamentals of Wireless Communication”, delivered to Engg. College students in One day seminar on Mobile and wireless Communication, Sri Aravindar Engineering College, on 5<sup>th</sup> Feb 2011
11. “Necessity of Fiber Optic Communication networks and Multicasting in optical networks”, delivered to Engg. College teachers in Two days Technical seminar on “Optical communication Networks”, Mepco Schlenk Engg. College, Sivakasi, on 16<sup>th</sup> Sep 2011
12. “Routing and switching in wireless and optical networks”, delivered to Engg. College teachers in Two weeks AICTE sponsored SDP on “Rural Communication: Challenges and computation in bandwidth utilization”, organized by Selvam Institute of Technology, Namakkal, 10<sup>th</sup> May 2012
13. “Green Optical communications “, delivered to Engg. College teachers in One week Teqip sponsored FDP on “Recent advances in Green Engineering”, Pondicherry Engg. College, 4<sup>th</sup> Dec 2012
14. “Security in mobile WiMAX networks“, delivered to Engg. College teachers in Two weeks AICTE course on “Security in wireless heterogeneous networks”, Pondicherry Engg. College, 22<sup>nd</sup> April 2013

15. “Optoelectronics and photonic systems- optical interconnects“, delivered to Engg. College teachers in One week ISTE-SRM STTP on “Recent advances in Microelectronics for wireless communication”, Pondicherry Engg. College, 9th May 2013
16. “Fiber-optic sensors”, delivered to Engg. College teachers in One week Teqip sponsored FDP on Wireless sensor Networks- Issues and challenges, Pondicherry Engg. College, 13<sup>th</sup> Nov. 2013
17. “Free space optics”, delivered to Engg. College teachers in Two weeks AICTE sponsored FDP on Pedagogy in Wireless Communication Technologies, M.A.M. College of Engineering Pondicherry Engg. College, 23<sup>rd</sup> Nov. 2013

### **MEMBERSHIP IN PROFESSIONAL BODIES**

Life member of ISTE

### **COURSES ORGANIZED**

1. VSNL panel discussion on “Information Security Policies”, Jan 2006
2. AICTE-ISTE sponsored Short Term Training Program on “Multimedia Signal processing and Communication” and ISTE –NSTEDB sponsored short term training program on “Entrepreneurship” for Engineering College and Polytechnic College Teachers May 7-15, 2008.
3. ISTE–NSTEDB sponsored awareness camp on “Entrepreneurship” for Engineering College and Polytechnic College students, June 26-28, 2008
4. VSNL panel discussion on “Rural Connectivity and its impact on Society”, March 2010
5. Three-day national level students’ symposium GENESIS, Feb 22-24, 2012
6. Atmel workshop on “AVR butterfly kit ”, for B. Tech students on 24th Feb 2012
7. TEQIP FDP on “Recent advances in Green Engineering”, for Engineering College and Polytechnic College Teachers, 3-7, dec 2012

## **SUBJECTS TAUGHT**

### **Under Graduate**

- Microwave and Optical Engineering
- Digital Communication
- Optical Communication
- Telecommunication Engineering
- VLSI Design

### **Post Graduate**

- Wireless Communication
- Optical networks
- Modelling and Simulation of Wireless Communication systems
- Telecommunication Switching systems
- ASIC design

### **Interaction with other Universities**

- DC member in Anna University
- Member of BOS in Pondicherry University
- Acted as session chair in national/international conferences and students' Workshops