National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

Curriculum Vitae

Brief Profile: 1-2 paragraphs (not exceeding 500 words)

Dr. P. Muthuchidambaranathan received his B.E. Degree in Electronics and Communication Engineering from Government College of Technology, Coimbatore, India, in 1992, M.E Degree in Microwave and Optical Engineering, from A.C. College of Engineering and Technology, Karaikudi, India, in 1994. He obtained his Ph.D. degree in optical communication from National Institute of Technology (NIT), Tiruchirappalli, India in 2009. He is currently working as a Professor in the Department of Electronics and Communication Engineering, National Institute of Technology (NIT), Tiruchirappalli, India. His research interests include recent technologies in wireless communication and optical communication. He published his research papers in refereed international journals, international and national conferences. He is an author of the textbook "Wireless Communications" (published by Prentice Hall of India).

1. Name : Dr. P. Muthuchidambaranathan
2. Designation : Professor
3. Office Address : Department of Electronics and Communication Engineering, National Institute of Technology, Tiruchirappalli, 620015
4. Telephone (Direct) (Optional):

   Telephone : +91-431-2503309 Extn:

   Mobile (Optional):
5. Email (Primary): muthuc@nitt.edu Email (Secondary) :

   Field(s) of Specialization:

   Wireless Communication

   Fiber Optic Communication

   Electrodynamics

   Air to Ground communication

   Free Space Optical Communication

7. Employment Profile

Job Title	Employer	From	To
R&D and Test Engineer	Radiall Protectron (P) Ltd. Bangalore	10.10.1994	05.05.1995
Lecturer	Shanmugha College of Engineering , Thanjavur	01-06-1995	30-04-1997
Lecturer	NIT-Trichy.(formerly REC)	02-05-1997	01-05-2002

Lecturer (S.S)	NIT-Trichy.(formerly REC)	02-05-2002	30.06.2007
Lecturer (S.G)	NIT-Trichy	01.07.2007	30.06.2010
Associate Professor	NIT-Trichy	01.07.2010	11.03.2018
Professor	NIT-Trichy	12.03.2018	Till date

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	NIT Tiruchirappalli	2009	First Class	Analysis of Soliton Propagation in Birefringent Optical Fibers
M.E.	ACCET, Karaikudi (Madurai Kamaraj University)	1994	First Class	Microwave and Optical Engineering
B.E	Govt. College of Tech. Coimbatore (Bharathiar University)	1992	First Class	Electronics and Communication Engineering
HSC	St.Mary's Hr.Sec.School, Dindigul	1988	First Class	I Group
SSLC	St.Mary's Hr.Sec.School, Dindigul	1986	First Class	I Group

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Head of the Department	Department of ECE, NIT, Trichy	Jan 2020	Till Date
Chairman of M.S. and Ph.D. Admissions Committee	NIT Tiruchirappalli	2017	Jan 2020
Associate Dean (M.S. /Ph.D.)	NIT Tiruchirappalli	21.12.2018	Feb 2020
Associate Dean (UG-II)	NIT Tiruchirappalli	21.12.2018	Feb 2020
Member of M.S. and Ph.D. Admissions Committee	NIT Tiruchirappalli	2014	2017
DAC member of Computer Support Group	Computer Support Group	-	-
DAC member	ECE	-	-
Member of M.S. and Ph.D. Admissions Committee	ECE	2010	Till date
Hostel Warden	Lapis	-	-
Hostel Warden	Agate Hostel	1997	1998

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
DC Member	Anna University Chennai, Deemed Universities	-	-
BOS Member	Other Universities	-	-

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2017	Institute day Award for maximum number of research publications	National Institute of Technology, Tiruchirappalli
2018	Institute day Award for maximum number of research publications	National Institute of Technology, Tiruchirappalli
2019	Institute day Award for maximum number of citations	National Institute of Technology, Tiruchirappalli

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)

13. Details of Academic Work

(i) Curriculum Development

1. Active participation in revising the UG & PG syllabus every year.
2. Staff in charge of Communication Engineering Laboratory and developing new experiments to apply the recent trends adopted in the field of Communication systems.
3. Doing all matters pertaining to Communication Engineering laboratory like procurement and maintenance of equipment, purchase of components, arranging for the service/repair of defective equipment etc.
4. Participated in developing laboratory instruction material for Communication Engineering Lab; Introduced new experiments based on WiComm Kit, WARP and CommSim.
5. Giving software assignments & mini projects to the students in the upcoming fields of Wireless Communication and Optical Communication during their course of study.
6. Developed wireless system design lab.

(ii) Courses taught at Postgraduate and Undergraduate levels

List of subjects/labs	**UG/PG**
Electrodynamics and Electromagnetic waves	UG
Fiber Optic Communication	UG
Analog Integrated Circuits	UG
Electronic Circuits	UG
Digital Systems	UG
Wireless Communication	UG & PG
Fiber Optic Communication Systems	UG, PG
Broadband Wireless Technologies	PG

(iii)Projects guided at Postgraduate level

(iv)Other contribution(s)

1. Developing Wireless System Design Lab
2. Time-table coordinator. Preparing Class Time-table for UG and PG.
3. Doing Course allotment to faculty / staff of ECE and Distribution.
4. Distribution of workload to M.Tech. Scholars in connection with the laboratory classes, cycle tests and end semester examinations.
5. Performing as a PAC Chairman in UG and PG levels
6. Member of M.Tech. Communication Systems Project committee.
7. Coordinating the final year B.Tech projects and comprehensive exam during the past years.
8. NBA Coordinator
9. BoS Coordinator

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Wireless System Design Lab (Co-Coordinator)	DST-FIST	2012	2017	Completed
Networked airborne base stations for disaster management	DST -Indo-Italian executive program in scientific and technological cooperation	2017	2020	Completed
Self-Energised UAV-assisted Communications for 5G Wireless Networks	MHRD-SPARC	2019	2023	Ongoing

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
M. Raja	Tranceiver Design for MIMO Systems	Supervisor	2014
S. Hariharan	Cooperative-MIMO for Cognitive Radio Networks	Supervisor	2015
V. K. Jagadeesh	RF- Free Space Optics	Supervisor	2016
M. Surendar	Multi User MIMO-OFDM	Supervisor	2017
P. G. Sudheesh	Interference Alignment	Supervisor	2018
R.Rajaganapathi	Cognitive Radio	Supervisor	2020
Vineeth Palliyembil	RF – Free Space Optics	Supervisor	2020
M. Narasimman	LTE, Green Communication	Supervisor	Ongoing
J AnandPushparaj	5G Wireless Technology	Supervisor	2022

G.Sivakannu	Air to Ground Communication	Supervisor	Ongoing
Sammaiah thurpati	Massive MIMO	Supervisor	Ongoing
N.Thanga Raj	Ultra Reliable low latency communication	Supervisor	Ongoing
P.Jeyakumar	Antenna and beamforming	Supervisor	2022
Jithin M George	Coursework ongoing	Supervisor	Ongoing
Mitali Gupta	Coursework ongoing	Supervisor	Ongoing
C Shekhar Kotikalapudi	Coursework ongoing	Supervisor	Ongoing

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
Design, Simulation and Research Application of Advanced wireless standards Using EEsof	National	July 23-25, 2015	Coordinator	National Institute of Technology, Tiruchirappalli
Microwaves through software	National	November 6 & 7, 2015	Coordinator	National Institute of Technology, Tiruchirappalli
Evolution of 5G and IoT through Cognitive Radio Networks	National	May 6 & 7, 2016	Coordinator	National Institute of Technology, Tiruchirappalli
Wireless Information And Power Transfer For Advanced Wireless Communication System	International	Jan 8 – 31, 2020	Coordinator	National Institute of Technology, Tiruchirappalli
Emerging Technologies of 5G Communications	International	Feb 10-14, 2020	Coordinator	National Institute of Technology, Tiruchirappalli
Advanced 5G Wireless Communications Systems	International	Feb 17 – 26, 2020	Coordinator	National Institute of Technology, Tiruchirappalli
Research Article Writing: Scientific Artist!	International	Feb 27, 2020	Coordinator	National Institute of Technology, Tiruchirappalli
A New Cooperative Wireless	International	Apr 28 –	Coordinator	National

Strategy: Soft Information Forwarding		May 10, 2021		Institute of Technology, Tiruchirappalli
Non-orthogonal Multiple Access Technology for 5GB	International	June 14-25, 2021	Coordinator	National Institute of Technology, Tiruchirappalli
Satellite Communication Systems	International	Mar 27 – Apr 20, 2022	Coordinator	National Institute of Technology, Tiruchirappalli

18. Invited Talks delivered

Topic	Date	Inviting Organization
Wireless Communication / Electrodynamics	Past Years	Other institutes

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Member	IETE	M189094 (2007)
Associate Member	IECE	AM086789-9 (2000)
Life Member	ISTE	LM30443 (2000)

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Singapore	2-4 July 2007	Fourth IEEE and IFIP international conference on Wireless and Optical Communication Networks (WOCN 2007), Singapore

21. Publications

(A) Refereed Research Journals:

1. Muthu Chidambara Nathan and D.Ravikumar, 'Optical Solitons for Ultra-High Speed Communications' published in the WSEAS Transactions Communications, Issue 7, Volume 6, ISSN 1109-2742, p745, July 2007.
2. Muthu Chidambara Nathan, N.Kalyanasundaram and D.Ravikumar, 'Soliton Propagation in Birefringent Fibers', published in Fiber and Integrated Optics, Taylor & Francis, Volume 27, Issue 2, pp.99-111 Feb 2008.
3. Muthu Chidambara Nathan, N.Kalyanasundaram and M.Krishnam Raju, "Analysis of Soliton Propagation in Birefringent Fibers," International Journal of Microwave and Optical Technology, Vol. 4, No. 6, pp 368-373, November 2009.

4. Kalyanasundaram and P. Muthuchidambaranathan, "Nonlinear pulse propagation in a weakly birefringent optical fiber part 1: derivation of coupled nonlinear schrodinger equations (cnlse)," Progress In Electromagnetics Research B, Vol. 19, 205-231, 2010.
5. Raja, P.Muthuchidambaranathan and Ha H. Nguyen, “Transceiver Design for MIMO Systems with Improper Modulations”, Wireless Personal Communications, Springer, vol.68, pp. 265-280, Jan. 2012.
6. Raja, Ha H. Nguyen and P. Muthuchidambaranathan, “Joint Optimization of Precoder and Decoder in Multiuser MIMO Systems”, REV Journal on Electronics and Communications (REV-JEC) (IEEE Communications Society), vol. 2, No. 1-2, June 2012
7. Raja, P. Muthuchidambaranathan, “A Novel Nonlinear Constellation Precoding for OFDM Systems with Subcarrier Grouping”, Springer, Wireless Personal Communications, 73, Dec. 2013, pp. 867-884.
8. Raja and P. Muthuchidambaranathan, “SVD-Assisted Joint Precoder and Decoder Design for the Uplink of MU-MIMO Systems with Improper Modulation”, Springer, Wireless Personal Communications, December 2013, Volume 73, Issue 3, pp 1129–1142.
9. Raja and P. Muthuchidambaranathan, “Multiuser MIMO Transceiver design for Uplink and Downlink with Imperfect CSI”, Springer, Wireless Personal Communications, March 2014, Volume 75, Issue 2, pp 1215–1234.
10. Raja, P.Muthuchidambaranathan, “SVD-Based Transmit Beamforming for Various Modulations with Convolution Encoding”, ICTACT Journal on Communication and Technology, vol.2, Issue. 03, pp.1-7, Sep.2011
11. Raja, P.Muthuchidambaranathan, “Performance Analysis of Closed-Loop MIMO system” International Journal of Computer Applications (IJCA), vol.4, No.12, pp.14-19, August 2010.
12. Raja, P. Muthuchidambaranathan, “Joint Precoding and Decoding in MU-MIMO Downlink Systems with Perfect Channel State Information (CSI)”, Procedia Technology, Volume 6, 2012, Pages 708-715, ISSN 2212-0173.
13. Hariharan, P. Muthuchidambaranathan, "Analysis of Linear Equalizers for Cooperative Multi-User MIMO Based Reporting System" International Journal of Electrical, Robotics, Electronics and Communications Engineering, vol. 8, No. 5, pp. 823 - 827, 2014.
14. Hariharan, K. Chaitanya, P. Muthuchidambaranathan (2014) Centralized Cooperative Spectrum Sensing with MIMO in the reporting Network over κ-μ fading channel. WASET -International Journal of Electrical, Computer, Electronics and Communication Engineering, 8(11), 1665 – 1670.

15. Hariharan, P. Muthuchidambaranathan (2014), “Cooperative MIMO Based Reporting System for IEEE 802.22 Standard Over Fading Channels”. Springer-Wireless Personal Communications, 80(1) 1-12.
16. Jagadeesh, V. K., K. V. Naveen, and P. Muthuchidambaranathan. "BER Performance of NLOS Underwater Wireless Optical Communication with Multiple Scattering." WASET -International Journal of Electrical, Computer, Electronics and Communication Engineering, 9(2), 280 – 283.
17. Jagadeesh, V. K., VineethPalliyembil, P. Muthuchidambaranathan, and Francis M. Bui. "Free space optical communication using subcarrier intensity modulation through generalized turbulence channel with pointing error." Microwave and Optical Technology Letters57, no. 8 (2015): 1958-1961.
18. Vellakudiyan, Jagadeesh, Palanivel Muthuchidambaranathan, Francis Minhthang Bui, and Vineeth Palliyembil. "Performance of a subcarrier intensity modulated differential phase-shift keying over generalized turbulence channel."AEU-International Journal of Electronics and Communications 69, no. 11 (2015): 1569-1573.
19. Surendar, M., and P. Muthuchidambaranathan. “Low complexity and high diversity gain non-linear constellation precoded MIMO-OFDM system with subcarrier grouping”, Elsevier, AEU - International Journal of Electronics and Communications, Volume 70, Issue 3, March 2016, Pages 265-271, ISSN 1434-8411.
20. Surendar, M., K. Chaitanya and P. Muthuchidambaranathan. “Performance analysis of multiple relay cooperative communication over generalized κ–μand η–μ fading channels”, Elsevier, AEU - International Journal of Electronics and Communications, Volume 69, Issue 9, September 2015, Pages 1220-1225, ISSN 1434-8411.
21. Jagadeesh Vellakudiyan, Imran Shafique Ansari, Vineeth Palliyembil, Palanivel Muthuchidambaranathan, Khalid A Qaraqe, “Channel capacity analysis of a mixed dual-hop radio-frequency–free space optical transmission system with Málaga distribution”, 2016/11/3, IET Communications, 10, issue 16, 2119-2124
22. Kamasani Chaitanya, Palanivel Muthuchidambaranathan, “Performance analysis of decode and forward relaying over dual-hop mixed fading channels”, 2017/3/31, AEU-International Journal of Electronics and Communications, 73, 84-88.
23. M Surendar, P Muthuchidambaranathan, Average BER Performance of Orthogonal Space–Time Block Coding System with Antenna Selection Over Generalized η–μ Fading Channel, 2017/9/1, Wireless Personal Communications, Volume 96, Issue1, Pages 1407-1418.
24. Surendar maruthu, sourabh rajput, muthuchidambara Nathan, “Symbol Error Rate of QO-STBC Based Decode-and-Forward Cooperative Communication

System over Generalized η–μand κ–μ Fading Channels", 2017/2/13, IET Communications, Volume 11, Issue 9, 1379 – 1386.

25. Vineeth Palliyembil, Jagadeesh Vellakudiyan, Palanivel Muthuchidamdaranathan, Theodoros A. Tsiftsis, "Capacity and outage probability analysis of asymmetric dual-hop RF–FSO communication systems", IET Communications, 12, pp. 1979 – 1983, 2018.
26. Vineeth Palliyembil, Jagadeesh Vellakudiyan, Palanivel Muthuchidamdaranathan, "Asymptotic bit error rate analysis of free space optical systems using spatial diversity", Optics Communications, Elsevier, 427, 617-621, 2018.
27. P.G. Sudheesh, Maurizio Magarinib , P. Muthuchidambaranathan" QoS-data rate optimization for fast fading interference alignment X network" Int. J. Electron. Commun. (AEÜ), Elsevier 2018
28. P.G. Sudheesh , Maurizio Magarinib , P. Muthuchidambaranathan "Interference alignment with iterative channel estimation for the reciprocal M × 2 MIMO X Network, Physical Communications, Elsevier 2018
29. P.G. Sudheesh ,Navuday Sharma, Maurizio Magarinib , P. Muthuchidambaranathan" Effect of imperfect CSI on interference alignment in multiple-High Altitude Platforms based communication", Physical Communications, Elsevier 2018
30. Jagadeesh Vellakudiyan, Vineeth Palliyembil, Imran Shafique Ansari, P. Muthuchidambaranathan , Khalid A. Qaraqe "Performance analysis of the decode-and forward relay-based RF-FSO communication system in the presence of pointing errors, IET Signal Processing 2018
31. P. G. Sudheesh, Mohammad Mozaffari, Maurizio Magarini, Walid Saad, P. Muthuchidambaranathan," Sum-Rate Analysis for High Altitude Platform (HAP) Drones With Tethered Balloon Relay", IEEE COMMUNICATIONS LETTERS, VOL. 22, NO. 6, JUNE 2018
32. P.G. Sudheesh , Maurizio Magarinib , P. Muthuchidambaranathan," Multiple-high altitude platforms aided system architecture for achieving maximum last mile capacity in satellite communication", Telecommunication Systems (2019) springer
33. Chathuranga M. Wijerathna Basnayaka∗, Dushantha Nalin K. Jayakody, Abhishek Sharma Hwang-Cheng Wang , P Muthuchidambaranathan and Kuljeet Kaurk" Performance Study of Strongly Coupled Magnetic Resonance" Physical Communications, elsevier2019
34. R. Rajaganapathi, P. Muthuchidambara Nathan," ORS-ACSS: Optimum Relay Selection and Accurate Cooperative Spectrum Sensing for Hybrid Cognitive Radio Networks" Wireless Personal Communications (2020),springer
35. Abhishek Sharma , Pankhuri Vanjani , Nikhil Paliwal , Chathuranga M.Wijerathna Basnayaka , Dushantha Nalin K. Jayakody , Hwang-Cheng Wang , P.

Muthuchidambaranathan" Communication and networking technologies for UAVs: A survey" Journal of Network and Computer Applications, elsevier2020

36. Vishaka Basnayake , Dushantha Nalin K. Jayakody , Vishal Sharma, Nikhil Sharma, P. Muthuchidambaranathan and Hakim Mabed, "A New Green Prospective of Non-orthogonal Multiple Access (NOMA) for 5G",MDPI 2020
37. Vineeth Palliyembil , Jagadeesh Vellakudiyan , Palanivel Muthuchidambaranathan "Performance analysis of RF-FSO communication systems over the Málaga distribution channel with pointing error" Optics Communications, elsevier2021
38. Tharindu Dilshan Ponnimbaduge Perera, Dushantha Nalin K. Jayakody, P. Muthuchidambaranathan "A WPT-Enabled UAV-Assisted Condition Monitoring Scheme for Wireless Sensor Networks" IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, VOL. 22, NO. 8, AUGUST 2021
39. Anandpushparaj J, Gupta Mitali, Dushantha Nalin K. Jayakody, P. Muthuchida mbaranathan "Outage and Throughput Performance of Half/Full-Duplex UAV-Assisted Co-Operative Relay Networks Over Weibull Fading Channel", Wireless Personal Communications (2021),springer
40. ANANDPUSHPARAJ JEGANATHAN and P MUTHUCHIDAMBARANATHAN "Outage and throughput analysis of UAV-assisted wireless-powered IoT sensor networks over Nakagami-m fading channel with non-linear energy harvester",sadhana2021,springer
41. P. Jeyakumar, P. Muthuchidambaranathan, S. Shrinidhi "A Novel Two Port High Isolation Dual-Polarized Multiband Sub-6 GHz MIMO Antenna for IoT Connected Devices" Wireless Personal Communications (2021),springer
42. P. Jeyakumar, Elangeeran Malar, Neeraj Idnani,P. Muthuchidambaranathan," Large Antenna Array with Hybrid Beamforming System for 5G Outdoor Mobile Broadband Communication Deployments" Wireless Personal Communications (2021),springer
43. P. Jeyakumar, Elangeeran Malar, s niveda, P. Muthuchidambaranathan,"Optimal Microwave Wireless Backhaul Link Design Using a Massive MIMO for 5G HetNet-Practical Deployment Scenario" Wireless Personal Communications (2021),springer
44. M. Narasimman1 · Sourabh Singh Rajput1 · P. Muthuchidambaranathan1 · M. Surendar "Outage Probability Analysis of Multi-relay Cooperative Decode-and-Forward System Over Generalized η–μ and κ–μ Fading Channels" Wireless Personal Communications (2021),springer
45. Selvakumar Tharranetharan, Dushantha Nalin K. Jayakody, P. Muthuchidambaranathan, Zheng Chang, and Moises Ribeiro," Pay-As-You-Go: A Wireless Power Transfer-Enabled Beamforming for Cooperative Communication Systems", IEEE WIRELESS COMMUNICATIONS LETTERS, VOL. 10, NO. 1, JANUARY 2021

46. P. Jeyakumar, Arvind Ramesh, S. Srinitha, V. Vishnu, P. Muthuchidambaranathan "Wideband hybrid precoding techniques for THz massive MIMO in 6G indoor network deployment" Wireless Personal Communications (2022),springer
47. Sammaiah Thurpati, P. Muthuchidamabaranathan, "Performance Analysis of Linear and Hybrid Precoding on Massive MIMO System Using Truncated Polynomial Expansion" Wireless Personal Communications (2022),springer

(B) Conferences/Workshops/Symposia Proceedings

1. Muthu Chidambara Nathan, "Genetic algorithm assisted antenna diversity aided multi carrier detection in Wireless Communication", the first international conference on Microwaves, Antenna, Propagation and Remote sensing, International Center for Radio Science, Jodhpur,Dec-2003
2. Muthu Chidambara Nathan and S.Sundaresan, 'Virtual Cellular Infrastructure for Mobile Ad hoc Networks', IWWAN2005, London, May-2005.
3. Muthu Chidambara Nathan and S.Sundaresan, 'CDMA based MAC for MANET', International Workshop on Network Architecture and Service Models (NASM'2005) in Shanghai, China during November 22-24, 2005.
4. Muthu Chidambara Nathan and G.Rama Krishna Rao, 'Soliton Pulse Compression Using Nonlinear Optical Loop Mirror', International technical conference IASTED, Canada during July-2006.
5. Malarkodi, P.Muthu Chidambara Nathan and V.V.Chakravarthy, 'Dynamic Power & Sub-channel allocation in Multi user OFDM systems', NCETET-2007 Kottayam during April 2007.
6. Muthu Chidambara Nathan, N.Kalyanasundaram and D.Ravikumar, 'High Speed Optical Communication Techniques', the third national conference on Signals, Systems and Communication (NCSSC-2007) at the College of University Guindy, Anna University during 1-2 June 2007.
7. Muthu Chidambara Nathan, N.Kalyanasundaram and D.Ravikumar, 'Transmission Control and Stability of Soliton Propagation in Birefringent fibers' was presented in the fourth IEEE and IFIP international conference on Wireless and Optical Communication Networks (WOCN 2007) Singapore during 2-4 July 2007. (1-4244-1005-3/07/$25.00 ©2007 IEEE).
8. Muthu Chidambara Nathan, N.Kalyanasundaram and K.Pradeep Kumar 'Spun Fibers for High Speed Optical Networks', IEEE and IFIP international conference on Wireless and Optical Communications Networks(WOCN-2008), Indonesia, 5-7 May 2008.

9. Muthu Chidambara Nathan, N.Kalyanasundaram and M.Krishnam Raju, 'Analysis of Optical Soliton Propagation in Birefringent Fibers', IASTED international conference on Wireless and Optical Communications (WOC-2008), Canada during 26-28 May 2008(accepted).
10. Muthu Chidambara Nathan, N.Kalyanasundaram and M.Krishnam Raju, "Analysis of Optical Soliton Propagation in Birefringent Fibers," was presented in IEEE conference TENCON-2008, Hyderabad, Nov-2008.
11. Muthu Chidambara Nathan and N.Kalyanasundaram, "Analysis of pulse broadening in dispersion managed soliton system," accepted in TENCON 2009, Singapore.
12. Raja, P.Muthuchidambaranathan, "Transmit Beamforming Method Based on Singular Value Decomposition for MIMO Systems," in ICCAIE 2010 (accepted), 5 - 7 December, 2010 in Kuala Lumpur, Malaysia.
13. Sravanthi, P.Muthuchidambaranathan and S.Raghavan, "Interaction and stability of soliton in Birefringent fibers," ICNEAC-2011, July-2011, Narsapur.
14. Raja, P.Muthuchidambaranathan, "Minimum Total MSE based Transceiver Design for Single-user MIMO System", Proc. of 17th IEEE Asia-Pacific Conference on Communications (APCC), Oct.2011, 720-725, Malaysia
15. Raja and P. Muthuchidambaranathan, "Joint Precoding and Decoding in MU-MIMO Downlink Systems with Perfect Channel State Information (CSI)" International Conference on Communication, Computing and Security (ICCCS-2012), Procedia Technology, Elseiver, vol. 6, pp. 708-715, Oct.2012. India
16. Raja, P.Muthuchidambaranathan, "BER Performance of SVD-based Transmit Beamforming with Various Modulation Techniques" 5th IEEE International Conference on Industrial and Information Systems (ICIIS) , Jul 29 - Aug 01, 2010, India, pp.155-160.
17. Raja and P. Muthuchidambaranathan, "Joint Optimization of Precoder and Decoder in Multiuser MIMO Systems with Imperfect Channel State Information (CSI)" Proc. of IEEE International Conference on Computing Communication and Networking Technologies (ICCCNT-2012),pp. 1-5, 2012, India
18. Sanka, K., M.Raja, P.Muthuchidambaranathan, "Improved minimum total MSE transceiver design with imperfect CSI at both ends of a MIMO link" 3rd IEEE International Conference on Electronics Computer Technology (ICECT), April 8-10, 2011, India, Pp.23-27.
19. Kalaiselvan, M. Raja and P. Muthuchidambaranathan "Performance Analysis of Multiuser MIMO Systems using Non-Iterative Technique", Proc. of International Conference of Signal processing, image processing and Pattern Recognition (ICSIPR'13), India, Feb.2013

20. Hariharan, S.Venkata siva prasad, P.Muthuchidambaranathan, “Average Detection Probability Analysis for Cooperative - MIMO Spectrum Sensing in Cognitive Radio Networks” ICACCI, Aug. 22-25, 2013, India, pp. 133-136
21. Surendar, P.Muthuchidambaranathan, Channel Coded STBC-OFDM Based Transmit Diversity Systems in Multipath Rayleigh-Fading Channels Accepted for ADCONS, Dec 13-17, 2013, India ACCN no: 14042890
22. Sandeep Singh Virk and P. Muthuchidambaranathan: Use of SC-FDMA on downlink of LTE technology, 7th International Conference on Advanced Computing and Communication Technologies (ICACCT) vol., no., pp. Nov. 16th, 2013
23. Sandeep Singh Virk and P. Muthuchidambaranathan: Comparative performance of Zero Forcing, Minimum Mean Square Error and Decision Feedback Equalizers, International conference on Green Computing, Communication and Conservation of Energy (ICGCE) vol., no., pp. Dec. 12th-14th, 2013. ACCN no: 14335767
24. Kalaiselvan and P. Muthuchidambaranathan, “Performance Analysis of Multiuser MIMO Broadcast channel based on LQ Decomposition”, IEEE International Conference on Green Computing, Communication and Conservation of Energy (ICGCE) vol., no., pp.807-810 Dec. 12th-14th, 2013. ACCN no: 14362518
25. Surendar, M.; Muthuchidambaranathan, P., "A novel joint ML detector for transmit diversity systems in frequency selective fading channels," Computational Intelligence and Computing Research (ICCIC), 2013 IEEE International Conference on , vol., no., pp.1,4, 26-28 Dec. 2013 doi: 10.1109/ICCIC.2013.6724270 ISBN : 978-1-4799-1594-1
26. Bishwajeet Sah, M. Surendar and P. Muthuchidambaranathan, “A Frequency Domain Joint MMSE-SIC Equalizer for MIMO SC-FDMA LTE-A Uplink”, IEEE International Conference International Conference on Electronics and Communication Systems 2014 (ICECS14) vol., no., pp. Feb. 13th-14th, 2014. ISBN : 978-1-4799-2321-2
27. Arpita Choudhary, Jagadeesh V K, P Muthuchidambaranathan, "Pathloss analysis of NLOS Underwater Wireless Optical Communication channel" IEEE International Conference International Conference on Electronics and Communication Systems 2014 (ICECS14) vol., no., pp. Feb. 13th-14th, 2014. ISBN : 978-1-4799-2321-2
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