Dr. A. SIVANANTHA RAJA, M.E., PH.D.,

Professor,

Department of Electronics and Communication Engineering,
Alagappa Chettiar Government College of Engineering and Technology,
Karaikudi, Sivaganga, Tamil Nadu - 630 003, India

Email: sivanantharaja@gmail.com

Contact: +91 - 94439 19844

Area of Specialization: Optical Communication and Visible Light

Communication

JOURNALS

- 1. D.Shanmuga Sundar, Sharath Sriram, Sumeet Walia, A. Sivanantha Raja, Marcos Flores C, and Madhu Bhaskaran, (2020), "Wearable Label Free Optical Biodetectors: Progress and Perspectives", Advanced Photonics Research, Wiley, doi: 10.1002/adpr.202000076.
- 2. R.Sivaranjani, D. Shanmuga Sundar, T. Sridarshini, R. Sitharthan, M. Karthikeyan, A. Sivanantha Raja, and Marcos Flores C, (2020), "Photonic Crystal Based All-Optical Half Adder: a brief analysis", Laser Physics, IOP Publishing, 30, 116205 (8pp), 10.1088/1555-6611/abbe8b.
- 3. K. Esakki Muthu, S. Selvendran, V. Keerthana, K. Murugalakshmi, A. Sivanantha Raja: "Design and analysis of a reconfigurable XOR/OR logic gate using 2D photonic crystals with low latency", Optical and Quantum Electronics, (2020) 52:433, 9 pages.
- 4. S. Selvendran, A. Susheel, P.V.Tarun, K. Esakki Muthu, A.Sivanantha Raja (2020), "A novel surface plasmon based photonic crystal fiber sensor", Optical and Quantum Electronics (2020) 52:290 https://doi.org/10.1007/s11082-020-02403-8.
- 5. S. Selvendran, A. Sivanantha Raja, K. Esakki Muthu, A. Lakshmi (2019): "Centain investigation on visible light communication with OFDM modulated white LED using

- Optisystem simulation", Wireless Personal Communications, DOI: 10.1007/s11277-019-06617-2.
- D.Shanmuga Sundar, C.Umamaheswari, T.Sridarshini, M.Karthikeyan, R.Sitharthan, A.Sivanantha Raja, and Marcos Flores C, (2019), "Compact Four Port Circulator based on 2D Photonic Crystals with 90º Rotation of Light Wave for Photonic Integrated Circuits Applications", Laser Physics, IOP Publishing, 29, 066201, doi: 10.1088/1555-6611/ab1413.
- 7. S.Selvendran, Sivanantharaja A (2019): "Performance investigation of optical wavelength conversion using a newly designed highly nonlinear fibre with ultra-flattened dispersion", Quantum Electronics, 49(6):585-592
- 8. K. Esakki Muthu, VN. Jannath Ul Firthouse, S. Sorna Deepa, A. Sivanantha Raja and S. Robinson, (2019), "Design and Analysis of 3-Input NAND/NOR/XNOR Gate Based on 2D Photonic Crystals", J. Opt. Commun, DE GRUYTER, https://doi.org/10.1515/joc-2018-0210.
- 9. Aravindan. N and Sivanantha Raja A (2019), "Performance Analysis of 200 Mb/s Indoor Visible Light Communication System Using Composite White Light Source", Journal of Computational and Theoretical Nanoscience, Vol.16, Issue.4, pp.1465-1471 (17), doi: 10.1166/jctn.2019.8059.
- 10. R. Sarojini, S. Selvendran, A. Sivanantha Raja, K. Esakki Muthu (2019), "Cross polarisation modulation based wavelength conversion with very low pump power in SOA", Optik- International journal for Light and Electron Optics, 185 (2019) 852-858.
- 11. S. Selvendran, A Sivanantha Raja, K. Esakki Muthu (2019), "A study on the effect of dispersion flattened characteristics of highly nonlinear fiber in fiber optic parametric amplification", Optik- International journal for Light and Electron Optics, https://doi.org/10.1016/j.ijleo.2019.02.063.
- 12. D. Shanmuga Sundar, R. Sathyadevaki, T.Sridarshini and A Sivanantha Raja, (2018), "Photonic crystal based routers for Photonic integrated on chip networks: a brief analysis, Optical and Quantum Electronics 50:383.
- 13. D. Shanmuga Sundar, R. Sathyadevaki and A Sivanantha Raja, (2018): "High efficient filters for Photonic Integrated Networks: a brief analysis", Laser Physics, IOP Publishing, 28, 116203, https://doi.org/10.1088/1555-6611/aadf27.

- 14. R. Kalidoss, A Sivanantha Raja, D.Jeyakumar and N.Prabhu (2018): "Solid state planar surface electrode with ion selective electrodes for clinical diagnosis", IEEE sensors journal, DOI: 10.1109/FJSEN.2018.2865726.
- 15. J Divya, S Selvendaran and A Sivanantha Raja, (2018): "Photonic crystal based optical bio-sensor: a brief investigation", Laser Physics, IOP Publishing, 28 (2018) 066206, https://doi.org/10.1088/1555-6611/aab7d2.
- 16. S Selvendaran, A Sivanantha Raja, S Yogalakshmi (2018): "A highly sensitive Bezier polygonal hollow core photonic crystal fiber biosensor based on surface plasmon resonance", Optik International Journal for Light and Electron optics, 171, (2018) 109-113 doi.org/10.1016/j.ijleo.2018.06.039.
- 17. K. Esakki Muthu, A.Sivanantha Raja. (2018): "Millimeter wave generation through frequency 12-tupling using DP-polarization modulators", Optical and Quantum Electronics, Springer.Opt Quant Electron (2018) 50:227, doi.org/10.1007/s11082-018-1488-y.
- 18. R.Sathyadevaki, D.Shanmuga Sundar and A.Sivanantha Raja (2017), "Photonic Crystal 4X4 dynamic hitless routers for Integrated Photonic NoCs", Springer, Photonic Network Communications, 36, 82-95, doi: 10.1007/s11107-018-0758-8.
- 19. J. Divya, S. Selvendran, A. Sivanantha Raja (2017): "Two dimensional photonic crystal ring resonator based channel drop filter for CWDM application", Photonic network communications, DOI: 10.1007/s11107-017-0749-1.
- 20. S Selvendaran, A Sivanantha Raja, S Yogalakshmi (2017): "A Highly Sensitive Surface Plasmon Resonance Biosensor using Photonic Crystal Fiber filled with Gold Nano wire encircled by Silicon Lining", Optik International Journal for Light and Electron optics, DOI: 10.1016/j.ijleo.2017.10.157
- 21. T. Dhandayuthapani, R. Sivakumar, R. Ilangovan, C. Gopalakrishnan, C. Sanjeeviraja, A. Sivanantharaja (2017): "High coloration efficiency, high reversibility and fast switching response of nebulised spray deposited anatase TiO2 thin films for electrochromic applications", Electochimica Acta, 255 (2017) 358 368.

- 22. Sivaprakash S.C., Sivanantha Raja A and Pavithra M (2017): "A meander coupled line wide band power divider with open stub and DGS for Mobile application", Turkish journal of Electrical Engineering and Computer Sciences, (2017) 25: 3627 3644.
- 23. D.Rajeswari, Sivanantha Raja A and Selvendran S, (2017), "Design and analysis of polarisation splitter based on dual-core photonic crystal fibre", International Journal for Light and Electron Optics (Optik), DOI: 10.1016/ij.ijleo.2017.06.067.
- 24. K. Esakki Muthu, A.Sivanantha Raja, S. Selvendran (2017): "Optical generation of millimetre waves through frequency decupling using DO-MZM with RoF transmission", Optical and Quantum Electronics, Springer, Vol. 49:63.
- 25. Jayson Keerthy Jayabarathan, A. Sivanantharaja and S. Robinson (2017), "Quality of Service Enhancement of Mobile Adhoc Networks Using Priority Aware Mechanism in AODV Protocol", Wireless Pers Commun, DOI 10.1007/s11277-017-4453-3.
- 26. Esakki Muthu K, Sivanantha Raja A and Shanmugapriya G (2017), "Frequency16-tupled optical millimeter wave generation using dual cascaded MZMs and 2.5 Gbps RoF transmission", ", Optik,, DOI: 10.1016/j.ijleo.2017.04.074
- 27. R.Yamunadevi, D.Shanmuga Sundar, A.Sivanantha Raja (2017), "AMM Cladding fiber for coupled plasmonic propagation and core guidance" Photonic Network Communications, Springer, doi: 10.1007/s11107-016-0653-0, Vol.33, Issue 3, pp 371-376.
- 28. C.Umamaheswari, D.Shanmuga Sundar and A.Sivanantha Raja (2017), "Exploration of Photonic Crystal Circulator Based on Gyromagnetic Properties and Scaling of Ferrite Materials", Optics Communication, Elsevier, doi: 10.1016/j.optcom.2016.07.065, Vol.382, Issue 1, pp 186–195.
- 29. Selvendran.S, A.Sivanantha Raja, S. Arivazhagan, M.Kannan, (2016) "Effect of Alpha and Gaussian Refractive Index Profile on the Design of Highly Nonlinear Optical Fiber for an Efficient Nonlinear Optical Signal Processing" Journal of Quantum electronics, Imprint: IOP science. Volume 46, No 9, pp 829–838.
- 30. D.Shanmuga Sundar, A.Sivanantha Raja, C.Sanjeeviraja, D.Jeyakumar, (2016): "Synthesis and characterization of transparent and flexible polymer clay substrate for OLEDs", Materials Today: Proceedings, Vol. 3 pages 2409–2412.

- 31. K.Manivannan, A. Sivanantha Raja, S.Selvendran (2016): "Performance Investigation of Visible Light Communication System Using Optisystem Simulation Tool", International journal of Microwave and Optical technology, Vol.11, No.5, Sept.2016, pp.377-383.
- 32. G. Bhuvaneswari, D. Shanmuga sundar and A. Sivanantha Raja "PANDA ring resonator for optical Gas and Pressure sensing applications" International Journal of Control Theory and Applications, Volume: No.9 (2016) Issue No.: 8 (2016), Pages: 3415-3422.
- 33. K.M. Pandimeenal, A. Sivanantha Raja and S. Selvendren "Study of the Performance of Free Space Optic Communication with Multiple Phase Encoded Signal under Different Weather Condition" International Journal of Control Theory and Applications, Volume: No.9 (2016) Issue No.: 8 (2016), Pages: 3423-3430.
- 34. R. Sathyadevaki, D. Shanmuga Sundar and A. Sivanantha Raja "Diagonally coupled hexagonal photonic crystal filter for optical supervisory channel" International Journal of Control Theory and Ap plications, Volume: No.9 (2016) Issue No.:8 (2016), Pages: 3491-3496.
- 35. K. Esakki Muthu and A. Sivanantha Raja "2.5 Gbps Millimeter-Wave Radio over Fiber Transmission based on Dual Octupling of RF Local Oscillator" International Journal of Control Theory and Applications, Volume: No.9 (2016) Issue No.:8 (2016), Pages: 3529-3534.
- 36. P. Maheswaravenkatesh, A. Sivanantha Raja and T. Jayasankar "Enhancing The QoS in Energy Efficient WDM/OFDM Passive Optical Networks" International Journal of Control Theory and Applications, Volume: No.9 (2016) Issue No. :8 (2016), Pages: 3505-3514.
- 37. S.C. Sivaprakash, A. Sivanantharaja, P. Senthil Babu and K. Monika "Size reduction of UWB power divider using double tapered transmission line" International Journal of Control Theory and Applications, Volume: No.9 (2016) Issue No.:8 (2016), Pages: 3515-3519.
- 38. Kalaiselvan C. and Sivanantha Raja A. "Tracking System For Real Time Video Surveillance Applications" International Journal of Control Theory and Applications, Volume: No.9 (2016) Issue No.:8 (2016), Pages: 3535-3542.
- 39. R. Yamuna Devi, D. Shanmuga Sundar and A. Sivanantha Raja "Negative epsilon medium based optical fiber for transmission around UV and visible region" International Journal

- of Control Theory and Applications, Volume: No.9 (2016) Issue No.: 8 (2016), Pages: 3581-3587.
- 40. D.Shanmuga sundar, A.Sivanantha Raja, C.Sanjeeviraja and D.Jeyakumar, "High temperature processable flexible polymer films", International journal of nano science, Vol.15, No.4 (2016) 166038 (5 pages).
- 41. K. Esakki Muthu, A. Sivanantha Raja (2016): "Improved filterless 12-tupled optical MMwave generation and 2.5 Gb/s RoF transmission", Optoelectronics and Advanced materials Rapid communications, Vol.10, No.11-12, p.869-872.
- 42. K. Esakki Muthu, A.Sivanantha Raja. (2016): "Bidirectional MM-Wave Radio Over Fiber transmission through frequency dual 16-tupling of RF local oscillator", Journal of European Optical Society Rapid publications, Vol. 12:24.
- 43. S.Selvendran, A.Sivanantha Raja (2016): "Performance analysis of a highly nonlinear optical fiber with different graded refractive index profiles", Optical and Quantum Electronics, DOI: 10.1007/s11082-016-0788-3.
- 44. P. Maheswaravenkatesh, A.Sivanantha Raja (2016): "A QoS-Aware Dynamic Bandwidth Allocation in PON Networks", Photonic network communication, DOI: 10.1007/s11277-016-3565-5
- 45. R.Yamunadevi, D.Shanmuga Sundar, A.Sivanantha Raja (2016), "Characteristics Analysis of Metamaterial based Optical Fiber" Optik International Journal for Light and Electron Optics, Elsevier, doi: 10.1016/j.ijleo.2016.07.014, Vol. 127, Issue 20, pp. 9377–9385.
- 46. R.Sathyadevaki, D.Shanmuga Sundar and A.Sivanantha Raja (2016), "Design of dual ring wavelength filters for WDM applications", Optics Communication, Elsevier, doi: 10.1016/j.optcom.2016.06.045, Vol.380, Issue 1, pp 409–418.
- 47. K.Rohini Priya, A.Sivanantha Raja and D.Shanmuga Sundar (2016), "Design of dual core liquid filled photonic crystal fiber coupler and analysis of its optical characteristics" Journal of Optical Technology, Optical Society of America, doi.org/10.1364/JOT.83.000569, Vol.83, No.9, pp. 569-573.
- 48. S. Selvendran, A. Sivanantha Raja (2016): "New refractive index profiles of dispersion-flattened highly nonlinear fibers for future all-optical signal processing in wdm optical networks", Photonic network communications, DOI: 10.1007/s11107-016-0635-2

- 49. Jayson K. Jayabarathan, Sivanantha Raja Avaninathan, Robinson Savarimuthu (2016): "QoS enhancement in MANETs using priority aware mechanisms in DSR protocol", EURASIP Journal on Wireless Communications and Networking, DOI: 10.1186/s13638-016-0629-x, 2016:131
- 50. S Yogalakshmi, S Selvendran, A Sivanantha Raja: "Design and analysis of a photonic crystal fiber based polarization filter using surface plasmon resonance", Laser Physics 26 (2016) 056201 (7pp).
- 51. R Sathyadevaki, A. Sivanantha Raja, D Shanmuga Sundar (2016) "Photonic crystal based optical filter: a brief investigation", Photonic network communication, Springer, DOI: 10.1007/s11107-016-0620-9.
- 52. S Selvendran, A Sivanantha Raja: "Analysis on the impact of parabolic index profile of the core of a high nonlinear fiber", Journal of Optical Technology, Vol. 83, No. 6, 2016
- 53. D Shanmuga Sundar, A Sivanantha Raja, C Sanjeeviraja, D Jeyakumar: "Highly transparent flexible polydimethylsiloxane films a promising candidate for optoelectronic devices", Polymer International, 2016 (9 pages) DOI 10.1002/pi.5088.
- 54. Sivanantha Raja, S. Vigneshwari, S. Selvendran: "A novel high gain and wide band hybrid amplifier designed with a combination of EDYFA and discrete Raman amplifier", Journal of Optical Technology, Vol. 83, No. 4, 2016 (11 pages).
- 55. D. Venugopal, S. Mohan, A.Sivanantha Raja (2016): "An efficient block based lossless compression of medical images", Optik, Vol. 127, pp. 754-758
- 56. D. Venugopal, A. Sivanantha Raja (2015): "Improvement of Public Healthcare System through Band Effective Storage and Transmission of Color Medical Images", Journal of Pure and Applied Microbiology, Vol. 9, pp. 201-207.
- 57. V.R.S. Rajeshkumar and A.Sivanantha Raja (2015), "ECG beat classification by radial basis function neural networks classifier based on PSO, GSA and Hybrid PSOGSA techniques", Journal of Pure and Applied Microbiology, Vol.9, pp. 681-689.
- 58. R.Priya, A.Sivanantharaja, Selvendran.S (2015) "Performance analysis of optimized NZDSF without amplification and without dispersion compensation for WDM optical networks" Optica Applicata, vol 45, No. 4, pp.473-490.

- 59. S.Geerthana, A.Sivanantha Raja, D. Shanmuga Sundar: "Design and optimization of photonic crystal fiber with improved optical characteristics", Journal of nonlinear optical Physics and materials, Vol. 24, No. 4, 2015 (11 pages).
- 60. G. Rajalakshmi, A.Sivanantha Raja, D. Shanmuga Sundar (2015): "Design and optimization of two dimensional photonic crystal based optical filter", Journal of Nonlinear Optical Physics & Materials, Vol. 24, No. 3 (2015) 1550027 (1-8).
- 61. C. Jenila, A.Sivanantha Raja: :Reduction of data acquisition time in Raman spectroscopy imaging using structure based compressive sampling algorithm", Optical and Quantum Electronics, Springer, Online publication dated 08 Sep 2015.
- 62. V.R.S. Rajeshkumar and A.Sivanantha Raja (2015), "A novel VLSI implementation of lossless ECG data compression technique using intelligent slope predictor and modified Huffman coding", Optoelectronics and Advanced materials Rapid communications, Vol. 9 No. 5-6, pp.873-879.
- 63. A.Sivanantha Raja, S. Selvendran, R. Priya, C. Mahendran (2014): "An optimized design for non-zero dispersion shifted fiber with reduced nonlinear effects for future optical networks", Optica Applicata, Vol.44(4), pp. 503-519.
- 64. Mercy Kingsta R and Sivanantha Raja A (2013): "Numerical Design and Analysis of multimode fiber with high bend tolerance and bandwidth using refractive index optimization", Optical Fiber Technology, Elsevier, Vol. 19, pp. 587-592.
- 65. Selvendran S and Sivanantha Raja A (2013): "Analysis of four wave mixing under different all optical modulation formats", Journal of Nonlinear optical Physics and Materials, Vol.22, No.3, 1350034 (20 pages).
- 66. Selvendran S, Sivanantha Raja A, Kalaiselvi K and Esakkimuthu K (2012): "Simultaneous four channel wavelength conversion of 50Gbps CSRZ–DPSK signals in S and C bands using HNLF without additional pump signals", Optical and Quantum Electronics, Springer, Vol.38, No.4/6.
- 67. Shanmuga Sundar D and Sivanantha Raja A (2012): "High efficient plastic substrate polymer white Light Emitting Diode", Optical and Quantum Electronics, Springer, Vol.38, No.4/6.
- 68. Sivanantha Raja A. and Sankaranarayanan K. (2007), 'Precise measurement of concentration of blood glucose from the tristimulus values obtained from the color of

the assay in the course of clinical diagnosis', IETE Journal of Research, Vol. 53, No. 5, pp. 485-494.

Conferences

- 1. Arasu,A., Baskaran,S. and Sivanantha Raja,A. "GSM application for interactive location identification of the cellular mobile phone user"Proceedings of National Conference on Advanced Computing(NCAC)PSG College of Tech., Coimbatore.,2004
- 2. Venkatasubramani,V.R., Kannan,K. and Sivanantha Raja,A. "A last mile problem Challenges and possible adaptive solutions"Proceedings of National Conference on Advanced Computing (NCAC)PSG College of Tech., Coimbatore.,2004
- 3. Sivanantha Raja A. and Sankaranarayanan K. "Measurement of Concentration of Biochemical components using color image processing"Proceedings of National Conference on Biomedical Engineering (NCBME)GITAM, Vizag, India. (CD),2004
- 4. Sivanantha Raja A. and Sankaranarayanan K. "Replacement of Colorimeter by Digital Computer and Camera in the measurement of Concentration of Bio-chemical components"Proceedings of National Conference on Advanced computingPSG College of Tech., Coimbatore, India., 2004
- 5. Sivanantha Raja A. and Sankaranarayanan K. "Modernizing Colorimeter with RGB Color Sensor for better clinical diagnosis of Sugar"Proceedings of National Symposium on Instrumentation (NSI-32)KS Rangasamy Collge of Technology, Thiruchengode, 2007
- 6. Sivanantha Raja A. and Sankaranarayanan K. "Performance analysis of a Colorimeter designed with RGB Color Sensor"Proceedings of International Conference on Intelligent and Advanced Systems (ICIAS), IEEE XploreUniversity of Petronas, Malaysia,,2007
- 7. Sivanantha Raja A. and Sankaranarayanan K "RGB Color Sensor for better clinical diagnosis"Proceedings of International Conference on Trends in Intelligent Electronic Systems (TIES)Sathyabama University, Chennai., 2007

- 8. Sivanantha Raja A "Performance analysis of MIMO transceiver wireless system incorporating hybrid ARQ"Proceedings of National Conference on Electrical and Instrumentation systems (NCEIS)GCT, Coimbatore, India. (CD),2010
- 9. Vallaiammai M and Sivanantha Raja A "Analysis of Stimulated Raman Scattering on DWDM system"Proceedings of Optics: Phenomena, Materials, Devices, and Characterization: Optics 2011: International Conference on Light, AIP Conference Proceedings, DOI: 10.1063/1.3643562University of Calicut, Kerala., 2011
- 10. Sridarshini T and Sivanantha Raja A "Performance Analysis of Optical Phase Conjugator on Dispersion Compensation in DWDM Systems"Proceedings of Optics: Phenomena, Materials, Devices, and Characterization: Optics 2011: International Conference on Light, AIP Conference Proceedings, DOI: 10.1063/1.3643562University of Calicut, Kerala.,2011
- 11. Kalaiselvan C, and Sivanantha Raja A "Investigation on tracking system for real time video surveillance applications" Proceedings of CUBE'12 International Information Technology Conference, Published in ACM Digital Library, DOI: 10.1145/2381716.2381737 Pune, Maharashtra state., 2012
- 12. D.Shanmuga Sundar and A.Sivanantha Raja "Design and analysis of a plastic substrate polymer white Light Emitting Diode"Proceedings of International Conference on Recent Trends in Computational Methods Communication and ControlGovernment College of Engineering, Tirunelveli.,2012
- 13. D.Shanmuga Sundar and A.Sivanantha Raja "Design of white light emitting diode with improved extraction efficiency"Proceedings of National Conference on Microwave & Optical Communication (NCMOC-12)Alagappa Chettiar College of Engineering & Technology, Karaikudi.,2012
- 14. K. Esakkimuthu ""Multiwavelength conversion using FWM Technique in HNLF""Proceedings of National Conference on Microwave and Optical Communication (NCMOC'12) Alagappa Chettiar College of Engineering & Technology, Karaikudi.,2012"
- 15. Anand A, Muthumani I and Sivanantha Raja A "Performance analysis of Radio Over Fiber systems using Brillouin assisted carrier phase shift"Proceedings of International Conference on Information Communication and Embedded Systems (ICICES), IEEE Xplore DOI: 10.1109/ICICES.2013.6508334S.A Engineering College, Chennai, 2013

- 16. Umanath R and Sivanantha Raja A "Transmission performance analysis of ROADM using holograms" Proceedings of International Conference on Information Communication and Embedded Systems (ICICES), IEEE Xplore DOI: 10.1109/ICICES.2013.6508387S.A Engineering College, Chennai, 2013
- 17. Gopi N, Muthumani I and Sivanantha Raja A "Dispersion compensation for WDM signals with polarization insensitivity" Proceedings of International Conference on Information Communication and Embedded Systems (ICICES), IEEE Xplore DOI: 10.1109/ICICES.2013.6508245S.A Engineering College, Chennai, 2013
- 18. Mercy Kingsta R and Sivanantha Raja A "Design and analysis of multimode fiber with high bend tolerance and bandwidth using restricted mode launch"Proceedings of International Conference on Information Communication and Embedded Systems (ICICES), IEEE Xplore DOI: 10.1109/ICICES.2013.6508231S.A Engineering College, Chennai,2013
- 19. Sivapriya A and and Sivanantha Raja A "Uplink and downlink of RF signals using optical frequency multiplication in Radio over Fiber"Proceedings of International Conference on Information Communication and Embedded Systems (ICICES), IEEE Xplore DOI: 10.1109/ICICES.2013.6508389S.A Engineering College, Chennai, 2013
- 20. Nithya M and Sivanantha Raja A "Analysis of fiber optical parametric oscillator"Proceedings of International Conference on Information Communication and Embedded Systems (ICICES), IEEE Xplore DOI: 10.1109/ICICES.2013.6508199S.A Engineering College, Chennai, 2013
- 21. D. Latha, Muthumani I and Sivanantha Raja A "Long-reach upstream >100-Gb/s by using directly modulated RSOAs for WDM PON"Proceedings of International Conference on Information Communication and Embedded Systems (ICICES), IEEE Xplore DOI: 10.1109/ICICES.2013.6508307S.A Engineering College, Chennai, 2013
- 22. S. Vigneshwaran, I. Muthumani, and Sivanantharaja A "Investigations on Free space optics communication system"Proceedings of International Conference on Information Communication and Embedded Systems (ICICES), IEEE Xplore DOI: 10.1109/ICICES.2013.6508300S.A Engineering College, Chennai, 2013
- 23. C. Dhaarani, S,D. Venugopal, and A. Sivanantha Raja "Medical Image Compression Using Ripplet Transform"Proceedings of International Conference on Intelligent Computing

- Applications (ICICA), IEEE Xplore DOI: 10.1109/ICICA.2014.57Coimbatore, Tamilnadu,2014
- 24. Priya.R, A.Sivanantharaja, S. Selvendran and C.Mahendran "Numerical characterization of non-zero dispersion shifted fiber used for long haul DWDM Transmission"Proceedings of National Conference on Microwave & Optical Communication (NCMOC'14)ACCET, Karaikudi,2014
- 25. Keerthika S.S, A.Sivanantharaja "80 Gbps Wavelength conversion in semiconductor optical amplifier with sub mW pumping"Proceedings of National Conference on Microwave & Optical Communication (NCMOC'14)ACCET, Karaikudi,2014
- 26. D.Shanmuga Sundar, A.Sivanantha Raja "ITO free flexible OLEDs"Proceedings of International Conference on Innovative Research in Engineering, Science and Management-15 (ESM-15)Jawaharlal Nehru University, New Delhi, India., 2015
- 27. D.Shanmuga Sundar, A.Sivanantha raja, C.Sanjeeviraja and D.Jeyakumar "Synthesis and Characterization of Novel Siloxane Based Transparent and Flexible Substrate for OLEDs"Proceedings of International conference on Nanomaterials and Nanotechnology (NANO-15)K.S.Rangasamy College of Technology, Tiruchengode, 2015
- 28. D.Shanmuga Sundar, A.Sivanantha Raja, C.Sanjeeviraja and D.Jeyakumar "Polymer Substrate Everlasting Alternate for Plastic in OEDs Application"Proceedings of International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2015)IIT-Guwahati,2015
- 29. G.Bhuvaneswari, D.Shanmuga Sundar, A.Sivanantha Raja "Design and analysis of ammonia sensor using PANDA ring resonator"Proceedings of International Conference on Emerging Trends in Engineering and Technology'16 (ICETET'16)Pandian Saraswathi Yadav Engineering College, Arasanoor.,2016
- 30. R.Yamunadevi, D.Shanmuga Sundar, A.Sivanantha Raja "Integration of metamaterial in tapered hollow core fiber for slow-light propagation"Proceedings of International Conference on Innovations in Engineering and Technology (ICIET- 2016)K.L.N College of Engineering, Sivagangai., 2016
- 31. D.Shanmuga Sundar, A.Sivanantha Raja "Flexible substrate for RF antenna applications"Proceedings of International Conference on Electrical, Electronics and Communication-(ICEEC'16)ACCET, Karaikudi,2016

- 32. Selvendran S and Sivanantharaja, A "Ultra-long distance transmission of single channel 10Gbps soliton signal using four wave mixing based regeneration technique"Proceedings of International Conference on Electrical, Electronics and Communication-(ICEEC'16)ACCET, Karaikudi, 2016
- 33. Selvendran.S, and Sivanantharaja, A "Wide band optical parametric amplification using dispersion flattened highly nonlinear fiber"Proceedings of International Conference on Electrical, Electronics and Communication-(ICEEC'16)ACCET, Karaikudi, 2016
- 34. R.Sathyadevaki, D.Shanmuga Sundar, A.Sivanantha Raja "Diagonally coupled hexagonal photonic crystal filter for optical supervisory channel"Proceedings of International Conference on Electrical, Electronics and Communication-(ICEEC'16)ACCET, Karaikudi,2016
- 35. G.Bhuvaneswari, D.Shanmuga sundar, A.Sivanantha Raja "PANDA ring resonator for optical gas and pressure sensing applications" Proceedings of International Conference on Electrical, Electronics and Communication-(ICEEC'16) ACCET, Karaikudi, 2016
- 36. R.Yamunadevi, D.Shanmuga Sundar, A.Sivanantha Raja "Negative epsilon medium based optical fiber for transmission around UV and visible region"Proceedings of International Conference on Electrical, Electronics and Communication-(ICEEC'16)ACCET, Karaikudi,2016
- 37. Muppidathi@Saravanan. A, Sivanantharaja, and Selvendran.S "Implementation of 2:1 multiplexer using an array of Mach-Zehnder interferometers" Proceedings of International Conference on Electrical, Electronics and Communication-(ICEEC'16) ACCET, Karaikudi, 2016
- 38. K.Sowbharanika kumar, A. Sivanantharaja, and Selvendran. S "Performance analysis and channel characterization of free space optical communication" Proceedings of International Conference on Electrical, Electronics and Communication (ICEEC'16) ACCET, Karaikudi, 2016
- 39. K.Archana, V.Gowsalya, M. Lavanya, M.Muthamil selvi, Selvendran.S , and A. Sivanantharaja, "Implementation of hybrid optical communication with use of FSO link"Proceedings of International Conference on Electrical, Electronics and Communication-(ICEEC'16)ACCET, Karaikudi, 2016

- 40. K. Esakki Muthu, and A.Sivanantha Raja, "Frequency sextupling using single LN-MZM and 2.5 Gb/s RoF transmission"Proceedings of International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET)Sri Sivasubramaniya Nadar College of Engineering, Chennai, 2016
- 41. R.Sathyadevaki, D.Shanmuga Sundar, A.Sivanantha Raja "Performance Investigation of optical filters based on the resonance effect of different photonic crystal rings"Proceedings of National Conference on Nanophotonics (NCNP 2016), (Best Poster Award).Bharathidasan University, Trichy, 2016
- 42. R.Yamunadevi, D.Shanmuga Sundar, A.Sivanantha "Investigation of sub wavelength surface plasmon propagation in metamaterial integrated optical fiber"Proceedings of National Conference on Nanophotonics (NCNP 2016)Bharathidasan University, Trichy,2016
- 43. G.Bhuvaneswari, D.Shanmuga Sundar, A.Sivanantha Raja "Design and analysis of photonic crystal based optical circulator"Proceedings of National Conference on Nanophotonics (NCNP 2016)Bharathidasan University, Trichy, 2016

Book & Book Chapters

- 1. D.Shanmuga sundar, A.Sivanantha Raja, C.Sanjeeviraja and D.Jeyakumar (2015), "Synthesis and characterization of novel siloxane based transparent and flexible substrate for OLEDs" Nanoelectronics and Sensors, ISBN: 978-93-85436-94-9, Bloomsbury Publication.
- 2. D.Shanmuga sundar, V.Nidhyavijay, T.Sridarshini and A.Sivanantha Raja (2018), "Performance Analysis of a Multichannel WDM Hybrid Optical Communication System for Long Haul Communication, Frontier Research and Innovation in Optoelectronics Technology and Industry, ISBN: 978-1-138-33178-5, CRC Press, Taylor & Francis.
- 3. D.Shanmuga Sundar, A.Sivanantha Raja, R.Saravanan and Marcos Flores Carrasco (2018), "Photocatalyst for indoor air pollution: a brief review" Green Photocatalysts for Energy and Environmental Process, Springer, doi: 10.1007/978-3-030-17638-9, ISBN: 978-3-030-17638-9.

- 4. D.Shanmuga Sundar, T.Sridarshini, R.Sitharthan, M. Karthikeyan, A.Sivanantha Raja and Marcos Flores Carrasco (2019), "Performance investigation of 16/32- channel DWDM PON and long-reach PON systems using an ASE noise source", Advances in Optoelectronic Technology and Industry Development Jose & Ferreira (eds.), ISBN: 978-0-367-24634-1, CRC Press, Taylor & Francis, London, pp. 93-99.
- 5. D.Shanmuga Sundar, T. Arun, M. Muneeswaran, R.Sitharthan, M. Karthikeyan, A.Sivanantha Raja, and Marcos Flores C (2020), "Conductive oxides role in Flexible Electronic Device Applications", Metal and Metal Oxides for Energy and Electronics, Springer Nature, ISBN: 978-3-030-53065-5, pp.121-148, doi: 10.1007/978-3-030-53065-5_4.
