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**Journal Publications**

1. D. Venugopal, S. Mohan, A.Sivanantha Raja (2016): "An efficient block based lossless compression of medical images", *Optik*, Vol. 127, pp. 754-758
2. A.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).
3. 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
4. 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
5. 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
6. 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).
7. Jayson K. Jayabarathan, Sivanantha Raja, Avaniathan, 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
8. 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
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11. 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.

12. 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
13. 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
14. 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
15. K. Esakki Muthu, A. Sivanantha Raja (2016): "Improved filterless 12-tupled optical MM-wave generation and 2.5 Gb/s RoF transmission", Optoelectronics and Advanced materials – Rapid communications, Vol.10, No.11-12, p.869-872
16. 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
17. 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.
18. 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
19. 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
20. 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.
21. K. Esakki Muthu, A.Sivanantha Raja, S. Selvendran (2017): "Optical generation of millimetre waves through frequency decoupling using DO-MZM with RoF transmission", Optical and Quantum Electronics, Springer, Vol. 49:63
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- encircled by Silicon Lining", *Optik - International Journal for Light and Electron optics*, DOI: 10.1016/j.ijleo.2017.10.157
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  27. 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.
  28. 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.
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  34. 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>.
  35. 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
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39. 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.
40. 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
41. 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