Publications:

1. S.P.Dash,S.K.Patanaik,S.K.Tripathy,Investigation of a low cost tapered plastic fiber optic biosensor based on manipulation of colloidal gold nano particles,Optics communication,437,388-391,2019
2. M.Sunderay,S.K.Triapthy,C.Das, "FDTD Analysus of Diffraction Efficiency in a Hologram for Applications in Optical Fiber Communication" Optik 154(2018) 325-330
3. C.S Mishra,G.Palai,S.K.Tripathy"Analysis of HLB Pass Filter using Silicon Photonics Structure",Optik,144(2017)522-527
4. Sumanta Kumar Patnaik,Sukanta Kumar Triapthy,and Surendra Nath "Synthesis and Characterization of Small Size Fluorescence LEEH Caped Blue Emission ZnTe Quantum Dots" ,Materials Science Poland,35(1),2017,pp1-5
5. Madhulita Sundaray, Chapala Das, Sukanta Kumar Tripathy, "Sensing Application of an Optical Fiber Dip Coated With L-Cystein Ethyl Ester Hydrochloride Capped ZnTe Quantum Dots", Materials Science Poland,34(3)2016,pp 665-668
6. G.Palai,S.K.Tripathy,D.Prakash ,K.DVerma "High efficiency polymer grating SOI structures for optical interconnects: An application of organic photonics", Optik 127(2016),10948-10952
7. Deepanjali Mishra and Sukanta K. Tripathy, Spin polarization of electrons in a magnetic impurity doped semiconductor quantum dot – The effect of electron–phonon interaction, *PRAMANA*,Journa of Physics Volume 86 Issue 3 March 2016 pp 661-667
8. N.Muuli,G.Palei,S.K.Tripathy, "Analysis of nonlinear PCF for birefringence applicationsusing FDTD Method",(2014), *Optik - International Journal for Light and Electron Optik* Vol 125 No14 pp 3499-3502.
9. N.Muduli,S.KTripathy, "Modelling a Sensitive pressure and temperature sensor using rectangular PCF by 2D FDTD technique"(2014)Optik *Optik - International Journal for Light and Electron ,Vol* .125,4363-4366
10. G. Palai, S.K. Tripathy, " Measurement of glycerol concentration in B–H–G solution using 3D photonic crystal structure", (2014), *Optik - International Journal for Light and Electron Optik* Vol 125,issue1 pp 349-352.
11. G. Palai, S.K.Tripathy, T.Sahu "A novel technique to measure the sucrose concentration in hydrogel sucrose solution using two dimensional photonic crystal structures" *Optik - International Journal for Light and Electron Optik* (2014)125, 349– 352
12. J.Verma,S.P.Dash and S.K.Tripathy "Design of a concentration sensor based on photonic crystal fiber placed between two single mode fiber, *Soft Nanoscience Letter*,2013,3,36-38
13. S. P. Dash ,S.K.Tripathy, "Y-shaped Design in Two Dimensional Photonic Crystal Structure for Applications in Integrated Photonic Circuits"*Optik Int.J,Light Electron**.(2013)*,Vol 124, issue17, pp 3649-3650.

14. Gopinath Palai, Nilambar Mudului, Santosh K. Sahoo, Sukanta K. Tripathy "Realization of Potassium Chloride Sensor Using Photonic Crystal Fiber" *Soft Nanoscience Letter*,2013,3,16-19
15. S.K.Tripathy, D.Misra, "Spin Polarization in GaAs LED , The Effect of Phonon interaction", *Optik Int.J,Light Electron opt.**(2013)**,*124,issue17,pp2709-2712
16. G.Palai ,S.K.Tripathy, "Efficient Silicon Grating for SOI applications",*Optik Int.J,Light Electron opt.(2013*), 124,isuue17,pp2645-2649.
17. S.K.Tripathy,Smaranika Swain, "Optical Bistable Switching in Semiconductor Heterostructure Containing a Quantum Dot layer & The effect of Phonons, "*Optik Int.J,Light Electron opt.(2013*), 124, issue17, pp2723-2726.
18. Sukanta K.Tripathy,Gopinath Palai, "A novel method for measurement of concentration using two dimensional photonic crystal structure", *Optics Communication*, vol 285,issue10-11(2012),pp2765-2768
19. S.K.Tripathy,Chinmaya Mohapatro,Subikash, S.P.Dash, "Implementation of optical logic gates using closed packed crystal structure", *Optics Communication*, vol.285,issue13-14(2012), pp3234-3237
20. L.Sahu,J.S.N. Achary, S.K.Tripathy,"Optimization of Diffraction Efficiency and Polarization Dependence loss in Photopolymer grating for use in multichip module",*Journal of Modern physics*, vol3(2012),pp1009-1012.
21. N.Muduli,G.Palai, S.K.Tripathy,"Realisation of Beam splitter using photonic crystal fiber(PCF) with and without Nonlinearity", *IJERA,Vol.2,issue5,pp2034-2037,2012*.
22. S.K.Tripathy, Amit Suryavansi, Priyanka, "Optical Interconnects For Multichip Module Using Polymer Embedded Waveguide Gratings", *International Journal of Material Science*, Vol 5,No 5,715-722 ,2010
23. S.K.Tripathy and Lingaraj Sahu " Efficiency Improvement in Vertical Interconnection using Phase Grating in Wave Guide", *International Journal Of Physics*,V0l.3,No.1.pp.33-39,January-June,2010
24. S.K.Tripathy, Mihir Hota, T. Panigrahy "A Model for Optical Bistability in a Hybrid Semiconductor Photonic Crystal Structure", *IEEE Photonic Technology Letters*, Vol.21, No.12, June 15, 2009
25. Mihir.Hota and S.K.Tripathy "Analysis of diffraction efficiency of a Holographic Coupler with respect to angular divergence", *Indian Journal of Physics* 83(4) 1-8(2009)
26. Mihir.Hota, S.K.Tripathy, R.K.Dash and A.K.Panda, "Free Space Based Optical Communications Systems" GITAM *Journal of Information Communication Technology*, Vol-2, pp-11-15, Jan-Jul 2009
27. S.K.Tripathy and S.Anand Rao, "Optical Bistability in a magnetic semiconductor", *Journal of Optics*, Vol 32, No.2-2003 pp-59-67.
28. S.K.Tripathy and S.Anada Rao, "Expression for third-order aberration theory for holographic images" *PRAMANA*-Vol.60, No.1 2003, pp 151-157.
29. S.Anand Rao and S.K.Tripathy, "A unified comprehensive theory for holographic simulation of various types of mirrors",*Journal of Optics*-2000,vol-29,no-4,pp-161-166.
30. S. Mohapatro, S.K.Tripathy and J.N.Mohanty, "Optical bistability in an electron hole system, the effect of photons", *J.phys.conds.Matter*.5, 1993-7633-7642,
31. G.Palei,S.K.Tripathy,N.Muduli,S.K.Patanaik , "Optimization of efficiency in a 1D Grating Structureat 1310nm wavelength for applicationin Optical Interconnect" ,Asian Journal of Physics" Vol-21,No2 pp 145-152,2012

32. N.Muduli,G.Palai and S.K.Tripathy,An Optimized Configuration of Photonic Crystal Fiber (PCF),for High Birefrigence and Low Loss Application Using FDTD Method" Trends in OptoElectro &Optical Communication Vol3,issue 3,pp1-8 2013

Conference

1. N. Muduli, G.Palai, S.K.Tripathy, "Modeling a Hexagonal Periodic Photonic Crystal Fiber for Optical Communication", *Emerging Research Areas and 2013 International Conference on Microelectronics, Communications and Renewable Energy (AICERA/ICMiCR), 2013 Annual International Conference on*, vol.1, no.4, pp. 4-6 June 2013 doi: 10.1109/AICERA-ICMiCR.2013.6575984
2. S. Rath,S.P.Dash,M.Hota and S.K.Tripathy, "Realization of Optical XOR and OR Gates Using Asymmetric Y Structure in a Two Dimensional Photonic Crystal", *AIP conference Proceedings in International Workshop on Functional Materials*, pp371-375(2012)
3. G.palai,S.K.Tripathy,.Mudali,D.Patanaik and S.K.Patanaik, "A Novel Method to Measure the Strength of Cygel Using Two Dimensional Photonic Crystal Structures", *AIP conference Proceedings in International Workshop on Functional Materials*, pp383-386(2012)
4. S. Rath, S.P.Dash,M.Hota and S.K.Tripathy, "Realization of Optical OR Gates Using Asymmetric Y Structure in a Two Dimensional Photonic Crystal", *ICONSET-2011,IEEEXplore*, 2011 , pp 196 – 197
5. S.P.Dash, Mihir Hota, Trinath Sahu and S.K.Tripathy "Analysis of Coupling Efficiency between Two Holey Fibers Using a Holographic Coupler" , *IEEE EXPLORE- ICCSP-2011*,pg184-187
6. S.P.Dash, Mihir Hota, and S.K.Tripathy, "Segmented Core-clad Fiber Design for Enhanced SBS Threshold and Improved Coupling Efficiency", *International Conference on MEMS and Optoelectronics Technology(ICMOT-2010) organized by International Accreditation Council of quality Education and Research.* pp76-79
7. M.Hota, S.P.Dash, Trinath Sahu and S.K.Tripathy "Analysis of Coupling Efficiency between Two Large Mode Area Photonic Crystal Fibers Using a Holographic Coupler" presented at *International conference on Radio Science(ICMARS-2010) held at International Center for Radio Science(ICRS) Jodhpur and published in IEEE EXPLORE*.
8. S.K.Tripathy, Mihir.Hota, P. Nayak "Coupling Optimization in holographic coupler – Large area Flattened Fiber system", pp 1-5, IEEE Xplore, *International Conference on Computing*