

FACULTY PROFILE



Dr. PALLAVI SINGH, M.E, Ph.D

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Experience: **Industry Experience (1 Year 2 months)**

Teaching Experience (7.0 Years)

Research Experience (5 Years)

Research area: Optical Communication

Paper Published in International Journals.

- [1] **Pallavi Singh**, D. K. Tripathi, Shikha Jaiswal, and H. K. Dixit, “All-Optical logic Gates using SOA based MZI structure: Design, Classification and Comparison,” *Advances in Optical technologies, Hindawi*, vol. 2014, pp.1-13, 2014.
- [2] **Pallavi Singh**, H. K. Dixit, D. K. Tripathi, and R. Mehra, “Design and analysis of all-optical inverter using SOA-based Mach–Zehnder interferometer,” *Optik, Elsevier*, vol. 124, Issue 14, pp.1926-1929, 2013.(**SCI, Impact Factor- 0 .769**)
- [3] **Pallavi Singh**, D. K. Tripathi N. K. Shukla, and H. K. Dixit, “Investigation of all-optical inverter system with NRZ and RZ modulations formats at 100Gb/s,” *Technical Gazette*, vol. 21, Issue. 4, pp. 757-761, 2014. (**SCI, Impact Factor – 0.615**)
- [4] **Pallavi Singh**, D. K. Tripathi, Shikha Jaiswal, and H. K. Dixit, “Design of All-optical buffer and OR gate using SOA-MZI,” *Optical and Quantum Electronics, Springer*, vol. 46, pp. 1435-1444, 2014.(**SCI, Impact Factor – 1.078**)
- [5] **Pallavi Singh**, D. K. Tripathi, and H. K. Dixit, “Design of all-optical NOR gates using SOA based MZI,” *Optik, Elsevier*, vol. 125, Issue. 16, pp. 4437-4440, 2014..(**SCI, Impact Factor – 0.769**)
- [6] **Pallavi Singh**, D. K. Tripathi, Shikha Jaiswal, and H. K. Dixit, “Design and analysis of all-optical AND, XOR and OR gates based on SOA-MZI configuration,” *Optics and Laser technology, Elsevier*, vol. 66, pp. 35-44, 2015.(**SCI, Impact Factor – 1.653**)

- [7] **Pallavi Singh**, Ashutosh Kumar Singh, Vanya Arun, and H. K. Dixit, “Design and Analysis of All-Optical, Half-Adder, Half-Subtractor and 4-bit Decoder Based on SOA-MZI Configuration,” *Optical and Quantum Electronics, Springer*(accepted).(SCI, Impact Factor – 1.078)
- [8] R. Mehra, S. Jaiswal, H. K. Dixit, and **Pallavi Singh**, “Performance analysis of all optical NOR gate at 80 Gb/s,”*Optik, Elsevier*, vol. 124,Issue. 13, pp.1672-1675, 2013.(SCI, Impact Factor-0.769)
- [9] D. K. Tripathi, **Pallavi Singh**, N. K. Shukla, and H. K. Dixit, “Design and performance analysis in multiuser optical CDMA systems” *Optik, Elsevier*, vol. 125, pp. 4998-5001, 2014.(SCI, Impact Factor – 0.769)
- [10] D. K. Tripathi, **Pallavi Singh**, N. K. Shukla, and H. K. Dixit “Performance investigation of the OFDM over SMF,” *Optical and Quantum Electronics, Springer*, vol.47, Issue. 3, doi-10.1007/s 11082-014-9941-z. (SCI, Impact Factor – 1.078)
- [11] Vanya Arun, N. K. Shukla, Ashutosh K. Singh, **Pallavi Singh** “Design and performance analysis of multiple all optical logic gates in a single photonic circuit” *Optical and Quantum Electronics , Springer* January 2016, DOI: 10.1007/s11082-015-0334-8. (SCI, Impact Factor – 1.078).
- [12] Ashutosh Kumar Singh, Vanya Arun, **Pallavi Singh** and Kamal Kishore Upadhyay, “Novel approach to jointly optimize working and spare capacity of survivable optical networks,” De Gruyter, J. Opt. Commun. 26 October 2020: 1-9. (SCI, Impact Factor – 0.71)
- [13] **Pallavi Singh**, Ashutosh Kumar Singh, Vanya Arun and D. K. Tripathi, “ Comparative study of All-optical INVERTER and BUFFER gates using MZI structure”, De Gruyter, J. Opt. Commun. 26 October 2020: 1-9. (SCI, Impact Factor – 0.71)
- [14] **D. K. Tripathi, Pallavi Singh**, “Light fidelity optical network a comparative performance evaluation”, De Gruyter, J. Opt. Commun. 9 June 2021: 1-5 (SCI, Impact Factor – 0.71)

Paper Published in International/ National Conferences

- [1] **Pallavi Singh**, D. K. Tripathi, R. Mehra, and H. K. Dixit, “Design of all-optical NOT gate using SOA based Mach-Zehnder interferometer at 1.0Gb/s,” *IEEE-ICPCES, MNNIT Allahabad*,pp. 1-4, 2012,
- [2] **Pallavi Singh**, D. K. Tripathi, and H. K. Dixit, “Investigation of XOR operation in all-optical system with NRZ,RZ and Manchester modulation formats”*IEEE-CODIS, Jadhavpur University*, pp. 417-420, 2012.
- [3] D.K.Tripathi,**Pallavi Singh**,N.K.Shukla, and H.K.Dixit, “Performance study in dispersion compensation techniques with Duobinary format at different bit rates,”*IEEE-ICPCES, MNNIT Allahabad*, pp. 1-5, 2012.
- [4] D.K.Tripathi, **Pallavi Singh**,N.K.Shukla, and H.K.Dixit, “Study in order and width of RZ super Gaussian pulse for different bit rate optical communication link with dispersion managed SMF (G655),” *IEEE-ICPCES, MNNIT Allahabad*, pp. 1-6, 2012.
- [5] Ashutosh Kumar Singh, **Pallavi Singh**, Vanya Arun and H. K. Dixit, “ Arc-path working capacity allocation planning in survivable WDM optical networks,” in Proc. IEEE ICIECS, 2015, pp. 1-4.

- [6] Ashutosh Kumar Singh, Vanya Arun, **Pallavi Singh**, Ashish Kumar Mishra, Pranjali Saxena and Manish Rai "P-Cycle Protection in Elastic optical network" in Proc. ICAREMIT-2020, 01-03 FEBRUARY, 2020, ISBN 978-81-933433-9-5, pp. 21-22.
- [7] Danak Gowda, Arudra Annepu, Ramesha, Prashantha Kumar and Pallavi Singh, "IoT Enabled Smart Lighting System for Smart Cities", Journal of Physics: Conference Series, AMSE 2021, 2089 (2021) 012037, doi:10.1088/1742-6596/2089/1/012037
- [8] Pallavi Singh, Hemanth.R.J, Dhinendra. C, and N. M Vivek, Design of High-Speed Vedic Multiplier Using Urdhva Tiryakbhyam Sutra sponsored First International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT 2022) organized by the Department of Electrical and Electronics Engineering, K. Ramakrishnan College of Engineering, Tiruchirappalli, Tamil Nadu, India during 16 – 18, February 2022. The conference has been organized in HYBRIDMODE.

Patent Filed

- [1].VALLIKANNU, AL.; SHARMILA, V.CERONMANI; SHYAMALA DEVI, B.RAJESH; SINGH, **PALLAVI**; MAHESWARI, M.; SUJATHA, M.; GEO, V. BESLIN and KUMARESAN Patent number: 2021102532, "SECURING CRITICAL DIGITAL ASSETS OF CHEMICAL INDUSTRIES USING SECURE DEVELOPMENT OPERATIONAL ENVIRONMENT (SDOE) FRAMEWORK" The Commissioner of Patents has granted the above patent on 16 June 2021, 13 May 2021
- [2].Dr. MANJANAİK. N, Ms. AKANKSHA SONI, Mr. ANIL KUMAR TANWAR, Dr. D. J. NAGENDRA KUMAR, Mr. ARUNA KUMAR B T, Mr. R. PRAKASH KUMAR, MR. V S S P L N BALAJI LANKA, Dr. U. PAVAN KUMAR, MR. LANKA ATRI DATTA RAVI TEZ AND **Dr. PALLAVI SINGH**, "VISITORS DETECTION AND FACE RECOGNITION SYSTEM USING IOT TECHNOLOGY", Date of filing of Application :03/11/2021, Publication Date : 19/11/2021, Application No.202141050486 A INDIA

