

FACULTY PROFILE



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

Assistant Professor (SG)

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

Teaching Experience (6.5 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)

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 ICIIECS, 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.

