MEGHA MITTAL

M-TECH
Wireless and Optical Communication
Malaviya National Institute Of Technology, Jaipur

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Career Objective

M.Tech graduate in Wireless and Optical Communication, eager to apply my academic knowledge to contribute to organizational growth. Committed to continuous learning and professional development in a dynamic environment.

Education

•Malaviya National Institute of Technology, Jaipur *2024*
M-Tech ,Wireless and Optical Communication CGPA: 8.65

•Jaipur Engineering College And Research Center, Jaipur *2021*
B-Tech ,Electronics And Communication Percentage: 79.12

Experience

•Neerja Modi School *August 2026*
Robotics Instructor Jaipur

•Freelance *Dec 2025-July 2026*
Stem Instructor Jaipur

•BVB Vidya Ashram *October 2025–Nov 2025*
Stem instructor Jaipur

•VAIDIK EDUSERVICES PVT. LTD. *June 2025–July 2025*
Subject Matter Expert Jaipur

•MNIT Jaipur *July 2023 – July 2024*
Teaching Assistant Jaipur

Projects

•Purely Optical Binary To Gray Code Converter
Converts Optical Input to Optical Output

- Tools technologies used: OptiFDTD, MATLAB
- Developed an innovative all-optical binary to gray code converter using plasmonic MIM waveguides.
- Designed an XOR gate with a Y-shaped combiner for high-speed and energy-efficient optical signal processing.
- Achieved a compact design (8x12 μm^2) with extinction ratio of 22.26 dB and response of 46.5 fs.

•Purely Optical XOR Gate
Converts Optical Input to Optical Output

- Tools technologies used: OptiFDTD, MATLAB
- Developed using Y-shaped plasmonic MIM waveguide configuration.
- Enhanced optical data processing speed and efficiency.
- Achieved a compact footprint of 3x6 μm^2, extinction ratio of 22.4 dB, and time response of 30 fs.

Technical Skills and Interests

Languages: C,C++,DSA, SQL
Developer Tools: Excel, VSCode, MATLAB, OptiFDTD
Soft Skills: Critical thinking, Communication, Team leadership, Mentoring
Coursework: Digital Electronics, Wireless and Optical Communication

Positions of Responsibility

- **Member** OSA Student Chapter, MNIT Jaipur *July 2023 – July 2024*

Achievements

- **GATE 2022** Qualified in Electronics and Communication Engineering *2022*
- **B.Tech Degree** Awarded with Honours *2021*