

HIMANI SARASWAT

ASPIRING MATERIAL SCIENCE RESEARCHER

PROFESSIONAL EXPERIENCE

University of Iowa

July 2018 - June 2020

Graduate Student

Worked under the guidance of Prof. Ravitej Uppu on investigation into the functionality of Gallium Arsenide (GaAs) and Gallium Antimonide (GaSb) quantum dots within the Telecommunication wavelength range (1300-1500nm).

Manav Rachna Educational Institutions

December 2018 - July 2021

Coordinator Students' Welfare

Successfully organized and managed over 200 events, contributing to the holistic development and engagement of students within the academic community. These events ranged from academic conferences, workshops and seminars to social events and intercollegiate competitions.

EDUCATIONAL EXPERIENCE

Manav Rachna University

Sep 2021 - January 2023

M.Sc. Physics - 8.6 First Division

Investigated new properties of SrVO₃ perovskite thin films for advanced technologies through Cu ion implantation. Analyzed structural, electronic, and bandgap changes using XRD, SEM, UV-vis, and NEXAFS. Implantation altered SrVO₃ structure and electronic structure, evident in lattice expansion, bandgap narrowing, and V-O₆ octahedra distortion (NEXAFS). Findings suggest potential for tailoring ABO₃ perovskite properties through Cu doping for technological applications.

Maharishi Dayanand University, Rohtak

July 2015 - Jun 2017

Bachelor of Education (Physical Science) - 72.3%

Versatile educator igniting curiosity in math & science. Craft engaging lessons, assess progress, and guide students through complex concepts with real-world connections and hands-on activities. Foster positive, inclusive environments where every student thrives.

Maharishi Dayanand University, Rohtak

Sep 2021 - January 2023

Bachelor of Science (Physical Science) - 59.45%

Physicist & digital architect, weaving theory with equations in mechanics, optics, and the quantum realm. Circuits & code bridge ideas to reality, while instruments whisper secrets I translate into practical solutions.

SKILLS & EXPERTISE

Programming & Software: Python (Intermediate-advanced). MATLAB (Average). PowderX. OriginLab. Athena & Artemis. MS Office proficient

Technical Expertise: RF-Magnetron Sputtering. SEM. AFM. XAS. UV-Vis. XRD. SNICS. E-beam Lithography. Atomic Layer Deposition

AWARDS

Awarded as Outstanding Achiever in the area of Research by Manav Rachna University, India on January 21, 2021.

EXTRA-CURRICULARS

- Represented foreign students as a leader in the Graduate Student Academic Committee (GSAC) at Department of Physics and Astronomy, University of Iowa, U.S.A.
- Volunteered for the iPeer Mentorship Programme organized by the Department of International Programs, University of Iowa, U.S.A.
- Keenly interested in debates, declamation and extempores.
- Performed on a Live Talent Show at ETC Punjabi channel which was aired on Television in India.