# SUMAN SHIT

#### **EDUCATION**

M.Sc. Physics, Indian Institute of Technology (IIT) Bhubaneswar

May 2024

CGPA: 8.16/10

B.Sc. Physics Honours, Vidyasagar University

June 2022

Marks: 8.86/10

## RESEARCH INTEREST

I am interested in experimental condensed matter physics, focusing on 2D materials, especially in Mxene and MBene.

#### MASTER THESIS

## Synthesis of MoAlB Phase Using Chemical Vapour Deposition

Odisha, India

Master's Dissertation at Indian Institute of Technology (IIT), Bhubaneswar.

Supervisor: Dr. Avijit Kumar.

(July 23 -May 24)

Two-dimensional metal borides (MBene) have got much attention due to their fas cinating properties like high electrical conductivity, hydrophilicity, biocompatibility, high specific capacitance. They have the potential to be used in various applications like energy storage, catalysis, anode of Li-ion battery, biosensing, gas sensing. It can be synthesized by selective chemical etching of MAB phase.

#### RELEVANT COURSE WORKS

Condensed Matter Physics, Semiconductor Physics, Accelerator based particle physics, Biophysics and Atomistic Simulations in Physics

# WORKSHOP, TALKS AND SEMINAR

- Presented 'Spintronics and it's future scope' at IIT BBS organized by Dr. Hemant Kumar.
- Raman scattering at IIT BBS organized by Dr. Nirmalendu Acharya.
- Given a talk on Optics in Medical Science at IIT BBS organized by Dr. Abhijit Kumar.

## FELLOWSHIP AWARDED, ACHIEVEMENT

• Junior Research Fellow with AIR 279	2025.
• Inspire Fellowship by DST	2025.
• Qualified GATE Physics Examination	2025
• Qualified IIT JAM Examination.	2022

## TECHNICAL SKILL

- Programming Languages FORTRAN, Python
- Software: MATLAB, LaTeX, Origin