

Darsh Ambade

THIRD YEAR UNDERGRADUATE STUDENT

☎ (+91) 8690911065 ☎ ms22068@iisermohali.ac.in ☎ Darsh-A ☎ Darsh Ambade

Education

Indian Institute of Science Education and Research, Mohali

Mohali, India

MAJOR: PHYSICS: B.Sc. - M.Sc

2022 - 2027

Center For Excellence in Basic Sciences

Mumbai, India

B.Sc. , UM-DAE CEBS

2022

Qualifications

Qualified JEE-Advance

TOP 2% OF ALL PARTICIPANTS IN THE TWO-STAGE ENTRANCE EXAMINATION FOR STATE-FUNDED UNIVERSITIES.

Year 2022

Projects

Temperature and Emission Measures of Solar Flares under Soft X-Ray Regime based on XSM (CH-2) and GOES data

☎ Darsh-A/XSM-TempEM

PROJECT LEAD

Sep 2023 - Feb 2024

- Cataloguing the newly discovered categories of Solar Flares observed under Soft X-Ray .
- Building a pipeline to measure the Temperature and Emission Measures of the Solar Flares which helps further categorizing the Flares.

Exploring Radio Interferometry and the Analysis of Astronomical Phenomena in the Radio Frequency Regime

☎ Darsh-A/KSP-Radio

PROJECT COLLABORATOR

May 2023 - July 2023

- Investigating Radio Emissions from Active Galactic Nuclei (AGNs)
- Modeling the Light Curve of GW170817 Using Techniques like Markov Chain Monte Carlo (MCMC)
- Analyzing Spectral Profiles of Fast Radio Bursts (FRBs) and Pulsars

Studying Galactic Dynamics and Galaxy Formation

PROJECT COLLABORATOR

May 2023 - June 2023

- Constructing Galaxy Models with GalIC Code as my first year summer project under Dr. Harvinder Kaur Jassal

Skills

Languages Python, Julia, Fortran, JavaScript, TypeScript, Dart

Programs MATLAB, Blender, Figma, Touchdesigner, After Effects, Photoshop

Relevant Courses

Credited Courses

- Astronomy and Astrophysics
- Thermodynamics and statistical physics
- Advanced optics and spectroscopy Lab
- Classical mechanics
- *Gravitation and cosmology
- *Advanced Electronics & Instruments Lab

Non-academic work

Co-Convener, Turing Club

COMPUTATION CLUB, IISER MOHALI

Oct 2023 - Oct 2024

- Led initiatives to foster computational skills and collaboration among students at IISER Mohali.

- Organized workshops, coding competitions, and guest lectures to engage members in programming, algorithms, and data science.

Developer & Founder of Insight-IISERM

Oct 2023 - Present

<https://play.google.com/store/apps/details?id=com.IISERM.insight>

THE OFFICIAL APP OF IISER MOHALI

- A comprehensive app developed for IISER Mohali using Flutter and Dart
- Achieved nearly 3,000 downloads to date

SRM - Audit Member

AUDIT COMMITTEE MEMBER FOR THE STUDENT RUN MESS OF IISERM

Oct 2023 - Present

- Maintaining and auditing financial datasheets for the SRM, managing approximately \$40,000 USD monthly.

Insomnia'24 - Core Committee

INSOMNIA: THE MAIN SCIENCE AND CULTURAL FEST OF IISERM

Feb 2024 - Oct 2024

- Social Media manager; Responsible for the growth of all the social handles and creating digital art and PR items for the fest

Hobbies and Interests

- Experimenting with creative tools like Blender, Figma, and TouchDesigner to design interactive interfaces and enhance UI/UX experiences.
- Creating digital art, focusing on pixel art and Photoshop designs.
- Playing guitar to unwind and explore music in my free time.