

Abhishek Yadav

Computational Physicist & Researcher

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PROFILE

Computational physicist with expertise in material modeling and plasma physics. Experienced in software development, material simulation, and laboratory techniques. Currently pursuing a Ph.D. with focus on Laser Plasma Interaction at UM-DAE CEBS.

EXPERIENCE

Application Engineer

Jan 2023 – Jul 2024

DHIO Research and Engineering Pvt Ltd., Bangalore

- Material Modelling & Simulation — technical demonstrations to prospects
- Performed benchmark problems defined by prospective clients
- Consulting on project execution for Material Modelling Software
- Customer engagement through in-person meetings and online sessions
- Attended conferences and technical seminars
- Environment development, coding, and algorithm design
- Supported Sales & Marketing on technical feasibility

Project Assistant

Nov 2021 – Jan 2023

School of Physics, University of Hyderabad

- Characterized various samples for Dielectric Properties
- Maintained instruments and ensured operational functionality

EDUCATION

Ph.D. in Computational Plasma Physics

Aug 2024 – Present

Department of Physics, UM-DAE CEBS

Research in computational modeling of plasma systems with a focus on Laser Plasma Interaction.

M.Sc. Solid State Physics (CGPI: 8.14)

Jul 2018 – Aug 2020

The Institute of Science, University of Mumbai

Dissertation: Synthesis and Characterization of $x[Co_{0.9}Ni_{0.1}Fe_2O_4] - (1-x)[Ba(Zr_{0.2}Ti_{0.8})O_3]$ Multiferroic Composite

B.Sc. Physics (CGPA: 6.71)

Jul 2015 – Jul 2018

Rkt College, University of Mumbai

TECHNICAL SKILLS

Programming	Python, FORTRAN 95, C, C++
Simulation	SIESTA/ASAP, OCTA/J-OCTA, LAMMPS
Platforms	Linux, Windows, Origin, Jupyter Notebook
Laboratory	Dielectric Spectroscopy (Novotherm-HT, PHECOS), UV-Vis Spectroscopy, X-ray Diffraction (XRD), FTIR, Dynamic Light Scattering (Litesizer 500)

LANGUAGES

Hindi: Native | **Marathi:** Working Proficiency | **English:** Academic Proficiency

REFERENCES

Dr. Bhooshan Paradkar

Asst. Professor, Physics Dept.

UM-DAE CEBS, Mumbai

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Dr. Shriniwas B. Kulkarni

Assoc. Professor, Physics Dept.

The Institute of Science (MES)

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Dr. A.V. Kadam

Assoc. Professor, Young Scientist
Fellow

Dr. Homi Bhabha State Univer-
sity

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