

HRISHIKESH INGOLE

Bangalore, India

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EDUCATION

Class 10 Maharashtra State Board of Secondary and Higher Secondary Education	March, 2017 Score: 97.6 %
Class 12 Central Board of Secondary Education	March 2019 Score: 94.6%
Indian Institute of Science Education and Research (IISER) Pune BS-MS Dual Degree, Department of Physics	August 2019 - May 2024 Overall CGPA: 7.3/10

RESEARCH EXPERIENCE

Indian Institute of Science Education and Research, Pune Aug 2022 – Nov 2022
Prof. Shivprasad Patil
Department of Physics
Semester Project: Fabrication of Optical Fiber Probes

- Fabricated Probes of Optical Fiber for a home-built setup combining Near Field Scanning Optical Microscope (NSOM), Atomic Force Microscope (AFM), and Fluorescence Correlation Spectroscopy (FCS).

Indian Institute of Science Education and Research, Pune Jan 2023 - April 2023
Prof. Shivprasad Patil
Department of Physics
Semester Project: Assembly of Fluorescence Correlation Spectroscopy (FCS) Setup.

- Assembly of FCS setup comprising Mirrors, Laser, Lenses, Objective, Avalanche Photo Diode, Data Acquisition software etc.
- Experimented with Rhodamine 6G.

Indian Institute of Science Education and Research, Pune June 2023 - May 2024
Prof. Shivprasad Patil
Department of Physics
Master's thesis: A Novel Design For Interferometer Based Dynamic Atomic Force Microscope.

- Designed a high-sensitivity Atomic Force Microscope (AFM) using SOLIDWORKS.
- Assembled and Integrated a Five-axis Nanopositioner.
- Implemented a Fabry-Perot cavity using Optical Fiber
- Engineered and Assembled all necessary Electronics.

WORK EXPERIENCE

Teaching Assistant Sept 2024- Dec 2024
Indian Institute of Science Education and Research, Pune
Fulfilled my role as a Teaching Assistant at IISER Pune for the following courses:

- Introductory Classical Mechanics
- Undergraduate Physics Lab I

- Undergraduate Physics Lab III

My duties involved conducting vivas and exams, tutorial sessions, laboratory sessions, etc.

PhD Familiarization Program

Jan 2025 - Present

Centre for Nanoscience and Engineering (CeNSE),
Indian Institute of Science (IISc) Bangalore

Currently engaged in 'PhD Familiarization Program' at CeNSE, IISc which constitutes of:

- Hands-on training at the National Nanofabrication Centre (NNfC)
- Hands-on training at the Micro Nano Characterization Facility (MNCf)
- Hands-on training at the Systems and Packaging Facility
- Collaborative research projects conducted under mentorship of CeNSE faculty members

RELEVANT SKILLSET

1	Programming Languages	I	Python(Proficient)
		II	C++(Beginner)
2	3D Designing	I	SOLIDWORKS(Proficient)
3	Finite Element Analysis	I	COMSOL Multiphysics (Beginner)
4	Scientific Instruments	I	<i>JPK Nanowizard II</i> Atomic Force Microscope
		II	Interferometer Based Atomic Force Microscope
		III	Sutter P2000 (for fabricating Optical Fibres)
		IV	Fluorescence Correlation Spectroscope

CONFERENCES

1	First National Conference on Force Spectroscopy and Microscopy, <i>India</i>	<i>July 2023</i>
2	ConForce-24: Second National Conference on Force Spectroscopy and Microscopy, <i>India</i>	<i>June 2024</i>

AWARDS AND ACCOLADES

DST INSPIRE FELLOW: INSPIRE scholarship is awarded to the scholar students pursuing undergraduate and graduate studies in scientific research by Department of Science and Technology, Govt of India

EXTRA CURRICULAR ACTIVITIES

Learning Indian Classical Music in Dhrupad style on Indian Bamboo Flute. *2020-Present*