

Education	University	Institute	Year	CPI/%
Ph.D.	IIT Bombay	IIT Bombay	2019-2026	8.34
M.Sc. Physics	University of Calcutta	St. Xavier's College, Kolkata	2015-17	67.1
B.Sc. Physics (Hons.)	University of Calcutta	St. Xavier's College, Kolkata	2012-15	58.6
Higher Secondary	WBCHSE	Laban Hrad Vidyapith	2012	90.80
Secondary	WBBSE	Laban Hrad Vidyapith	2010	90.44

EMPLOYMENT HISTORY

- **Research Associate** | CRNTS, IIT Bombay (Jul'25-Jan'26)
- **Guest Faculty (Physics)** | Techno International Newtown, Kolkata (Sep'17-Jun'19)

RESEARCH EXPERIENCE

- **Ph.D. Thesis: Understanding Self Assembly of Nanomaterials: Influence of Nanoscale Interactions and Interfacial Environments**
(Guide: Prof. Sumita Srivastava, Co-guide: Prof. Rajneesh Bhardwaj)
- **International Collaborations**
 - IIT Bombay - Ohio State Frontier Center Scholars Program
PIs: Prof. S. Srivastava (IITB), Prof. G. Agarwal (OSU) (The Ohio State University, USA, Mar-May'24)
 - Real time membrane-nanoparticle interaction using high speed Atomic Force Microscopy
Collaborators: Prof. W. H. Roos, Dr. S. Maity (University of Groningen, The Netherlands, Dec'23)
- **Synchrotron Beamtimes**
 - Ex situ GISAXS at nanocolloid decorated Langmuir films: BL18B (PF, KEK, Japan, May'25)
 - In situ GISAXS, GIXD, and XRF at biomembranes: P08 PETRA III (DESY, Germany, Apr'25)

TECHNICAL SKILLS

- **Softwares:** MS Office, SQL, L^AT_EX, Origin
- **Languages:** C, Python, VHDL, HTML
- **Instrumentation:** AFM, SAXS/WAXS, FEG-SEM/EDS, Optical Microscope, Tensiometer, UV-Vis, DLS.
- **Experimentation:** Nanoparticle synthesis, Functionalization of colloidal particles/surfaces, Interfacial rheology, Sessile/Pendant drop measurements, Optical/electron microscopy, Dry/liquid AFM imaging, X-ray scattering

GRANTS, AWARDS & ACHIEVEMENTS

- **Travel Grants**
 - KEK-Japan Project, DST, Govt. of India (2025)
 - PETRA-III Project, India@DESY, Govt. of India (2025)
 - APS Global Physics Summit 2025, International conference funding (IITB) (2025)
 - Collaborative Research, IoE funding (IITB) (2023)
- **Best Poster Award**, CompFlu 2025 (IISc Bangalore) (2025)
- **Best Performer**, GIAN course on Soft Matter (NIT Calicut) (2025)
- **IITB-OSU Frontier Center Scholarship** (2024)
- **Best Oral Presentation**, SMST 2022 (2022)
- **Qualified GATE (percentile 96.69) & JEST (percentile 91.64)** (2019)
- **INSPIRE Scholarship**, DST, Govt. of India (2012)

PUBLICATIONS

- **Bhattacharjee, S.**, Khawas, S., & Srivastava, S. (2025). *Surfaces and Interfaces - SURFIN-D-26-01396 (Under review)*
- Khawas, S., **Bhattacharjee, S.**, & Srivastava, S. (2025). *Phys. Rev. E - es2026jan31_593 (Under review)*
- **Bhattacharjee, S.**, et al. (2026). *J. Phys.: Condens. Matter* 38 063001
- Vaisakh, N. P., **Bhattacharjee, S.**, & Srivastava, S. (2025). *Colloids Interface Sci. Commun.*, 65, 100825
- Kumar, C.*, **Bhattacharjee, S.***, & Srivastava, S. (2024). *Nanoscale Adv.*, 6(18), 4683-4692 [***Equal authorship**]
- Khawas, S., **Bhattacharjee, S.**, et al. (2024). *Colloids Surf. A: Physicochem. Eng. Asp.*, 690, 133762
- **Bhattacharjee, S.**, & Srivastava, S. (2023). *Soft Matter*, 19(12), 2265-2274

CONFERENCES & WORKSHOPS

• Contributed Talks

- APS DSOFTE Students' Virtual Conference (2025)
- APS Global Physics Summit (California, USA, 2025)
- APS March Meeting (Virtual) (2024)
- International Conference on Smart Materials for Sustainable Technology-II (SMST-2022) (IIT Bombay, 2022)
- International Conference on Advanced Materials for Better Tomorrow (AMBT 2021, Virtual) (2021)
- International Conference on Nanomaterials & Nanotechnology (ICONN 2021, Virtual) (2021)

• Poster Presentations

- CompFlu 2025 (IISc Bangalore, 2025)
- CompFlu 2022 (IIT-KGP Research Park, Kolkata, 2022)

• Participations

- GIAN course 'SOFT MATTER IN PHYSICS, BIOLOGY AND MATERIALS SCIENCES' (NIT Calicut, 2025)
- AFM for Nanomaterials (Park AFM workshop) (IIT Bombay, 2025)
- SYMPHY 2024 (IIT Bombay, 2024)
- SYMPHY 2023 (IIT Bombay, 2023)
- Workshop on FIB-SEM (SAIF/CRNTS IIT Bombay, 2023)
- Science Academies Lecture Workshop on 'Recent Advances in Physics' (SXC Kolkata, 2017)
- STAR-DBT seminar on 'Advances in Physics-Biology Interfaces' (SXC Kolkata, 2016)
- 'VLSI Design Techniques' workshop (SXC Kolkata, 2016)

TEACHING EXPERIENCE

- **Engineering Physics 2 (Theory, Lab)** - Techno International Newtown, Kolkata (Sep'17-Jun'19)
- **Engineering Physics 1 (Theory, Lab)** - Techno International Newtown, Kolkata (Sep'17-Jun'19)

CO-CURRICULAR ACTIVITIES

• TAsip on Instruments/Courses - IIT Bombay

- FEGSEM (JEOL JSM-7600F), SAIF/CSIF (Aug'22-Jun'25)
- SAXS (Xenocs Xeuss 2.0), SAIF/CSIF (Jan'20-Aug'24)
- Master TA (TA 101), CRNTS (Autumn'22, Spring'23)

- **Graduate Student Member** of American Physical Society (APS) (Oct'23-Present)

• Peer Reviews

- Physics of Fluids (2026)
- Journal of Colloid and Interface Science (2024)

- **Department Coordinator (IRSCP)** for CRNTS, IIT Bombay (2021-2022)

• Volunteering

- Student Organizer, Frontiers In Biomolecular Interactions 2024, IIT Bombay (2024)
- Student Secretary, SMST 2022, IIT Bombay (2022)

CERTIFICATIONS

- **Peer Review Excellence** - online training graduate (IOP Publishing) (2026)
- **Responsive Website Basics: Code with HTML, CSS, and JavaScript**, Coursera (University of London) (2020)
- **Nanotechnology: A Makers Course**, Coursera (Duke University) (2020)
- **Introduction to Databases**, Coursera (Stanford University) (2013)

REFERENCES

1. **Dr. Sunita Srivastava**, Dept. of Physics, IIT Bombay
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2. **Dr. Rajneesh Bhardwaj**, Dept. of Mechanical Engineering, IIT Bombay
Email: rajneesh.bhardwaj@iitb.ac.in
3. **Dr. Gunjan Agarwal**, Mechanical and Aerospace Engineering, The Ohio State University
Email: agarwal.60@osu.edu