



DEPARTMENT OF APPLIED PHYSICS

FACULTY OF TECHNOLOGY AND ENGINEERING

THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

(UGC-DRS and DST-FIST Supported Department)



About the Department

The Department of Applied Physics, established in 1973, is a premier institution of The Maharaja Sayajirao University of Baroda, located in the vibrant city of Vadodara, known for its rich cultural heritage and academic excellence. The Department has active research groups working in various interdisciplinary areas, with strong links to academic and industrial collaborators. Supported by major funding from UGC, DST-FIST, AICTE, and DAE-BRNS, the Department is equipped with state-of-the-art instrumentation and well-furnished research laboratories. With a commitment to interdisciplinary learning, innovation, and societal impact, the Department continues to attract bright minds eager to explore the applied frontiers of physics.

Faculty

Experienced and highly qualified faculty members with Ph.D. from reputed national and international universities/institutes, along with international exposure through prestigious postdoctoral fellowships such as BOYSCAST.

Courses offered

- M.Sc. (Applied Physics)
- M.Sc. (Material Science-Nanotechnology)
- PG Diploma in Solid State Electronics
- Ph.D. in Applied Physics

ADMISSION OPEN
2025-26

Advanced Research facilities

- X-ray diffractometer (XRD)
- Differential Scanning Calorimeter (DSC)
- UV-Vis Spectrophotofluorometer
- Thin film/Electrical Characterization
- Electron beam evaporation System
- TL System
- FTIR Spectrometer
- Permeability Tester
- Constant Temperature water bath
- Residual Gas Analyzer
- Universal bench dye-wire bonder
- Tunable Laser
- TG-DTA
- RF Magnetron Sputtering
- DC Magnetron Sputtering
- Computational laboratory



Research and Development

This Department is actively involved in various key research areas, such as

- Atomic and Molecular Physics
- Applied Optics & Optical instrumentation
- Luminescence
- Theoretical Physics
- Condensed Matter Physics
- Polymer Nanocomposite Membrane
- Development of Laser diodes, Thin film devices and sensors
- Random matrix theory
- Quantum chaos
- Physics of complex systems
- Non-equilibrium dynamics
- Computational Physics

Infrastructure

- Modern classrooms
- Well-designed practical laboratories
- Advanced research laboratories
- State-of-the-art computer laboratory

Key features of the Department

- 250+ publications, patents, an h-index of 40, and thousands of citations.
- Opportunities for student research projects, internships, and dissertations.
- Industry-based course content including modules on Physical Techniques in Industry (PTI), Non-Destructive Testing (NDT), Advanced Instrumentation etc.
- Alumni have qualified for various exams including NET, GSET, ONGC, and GATE.

Contact for Inquires

Dr. A. N. Galaria (7698234973)

Dr. S. H. Parikh (8460391241)

Department Website: <https://msubaroda.ac.in/academics/FTE/department/APHY>

GCAS link: <https://gcas.gujgov.edu.in/>

Apply through
GCAS portal
*No entrance exam
for admission

Activities

- Academic tours to various prestigious research institutes, such as ISRO, PRL, IPR etc.
- Guest lectures/Seminars from eminent personalities.
- Hands-on practical sessions to sophisticated equipment.
- Various Techo Fests, competitions, sports activities etc.



Department of Applied Physics
Faculty of Technology & Engineering
The Maharaja Sayajirao University of Baroda, Vadodara

Admission - 2025

1. Master of Science (M. Sc.) In Applied Physics

Duration of course	2 years
Eligibility	B. Sc. (Physics / Electronics)
Mode of Admission	No Entrance Test
Course Status	Grant in Aid (Regular)

2. Master of Science (M. Sc.) In Materials Science (Nanotechnology)

Duration of course	2 years
Eligibility	B. Sc. (Physics/Chemistry/Mathematics/Electronics) OR BE/B. Tech (any branch) OR B. Pharm
Mode of Admission	Entrance Test (10:00 am to 12:00 noon, 13/06/2025)

3. Postgraduate Diploma in Solid State Electronics

Duration of course	1 year
Eligibility	B. Sc. (Physics/Electronics)
Mode of Admission	Entrance Test (10:00 am to 12:00 noon, 13/06/2025)
Course Status	Grant in Aid (Regular)

For registration of the entrance test go through the following link:

<https://admission.msubaroda.ac.in/applicant/#/entrance-programme-list>

Link for GCAS: <https://gcas.gujgov.edu.in>

Link for Department of Applied Physics: <https://msubaroda.ac.in/academics/FTE/department/APHY>

For admission inquiry: E-mail : head-apphy@msubaroda.ac.in

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