

Department of Physics, Electronics & Space Sciences

**University School of Sciences,
Gujarat University, Navrangpura, Ahmedabad - 380 009.
Phone: +91-79-26303041, Fax : +91-79-26308545
TeleFax +91-79-26303041**

DRS-SAP and DST-FIST Sponsored Department

**Director : Prof. S. R. Dave
Head : Prof. P.N. Gajjar**



Brief History

Department of Physics has a remarkable history of more than 50 years. The Department was established in the year 1959 with commencement of M.Sc. (Physics) course with five faculty members. Initially department was offering specialization in Solid State Physics, Electronics and Nuclear Physics. The department established research activities in the areas of Solid State Physics and Ionospheric studies at very early stages. In the year 1973, Advanced P.G. Diploma Course in Space Sciences and its Applications was started and in 1989, the Department started two year M.Sc. Electronics program. In 2009, the P.G. Diploma Course in Space Sciences and its Applications has been discontinued and a new “Advanced P.G. Diploma in Geoinformatics and Satellite Communications” course has been started.

Present Scenario

At present, Department offers M.Sc. (Physics), M.Sc. (Electronics Sciences), M.Phil (Physics), Ph.D (Physics), Ph.D (Electronics Science) and Advanced P.G. Diploma in Geoinformatics and Satellite Communication courses. There are nine faculty members in the department, and all are sincerely involved in teaching and research. The department is involved in research activities in the following major areas.

- Condensed Matter Physics (Theory and Experiment)
- Computational Physics
- Materials Science
- Microwave Dielectrics
- Ionosphere
- Atmospheric Physics
- Remote Sensing
- Physics Education, etc.

Infrastructure

The department has well developed laboratories for teaching at post graduate level in Physics and Electronics Science. Major facilities available in the department for research are

- ❖ Precision LCR meter
- ❖ Atomic Force Microscope
- ❖ e-beam Evaporation System
- ❖ Computational Facilities
- ❖ Microtop-II Sunphotometer
- ❖ Software for Remote Sensing and GIS studies
- ❖ Hall effect setup
- ❖ Pulsed Laser deposition system



Highlights

Since 2006, department is supported by DST through FIST (Level-I) Program. Department is also supported by UGC through DRS SAP (Phase-I) for the period 2012-2017 with thrust area in Condensed Matter Physics. The department updates the syllabi in regular intervals to remain active in recent trends in the subject. Department conducts Refresher Courses for College and University Teachers. The faculty members of the Department collaborate with the other Universities and Institutes and avail facilities of these centres. The faculty members of the department have collaboration in terms of research activities with illustrious institutes such as BARC (Bombay), IIT (Bombay), IUAC (N.Delhi), NCL (Pune), SAC (Ahmedabad), Tokyo Institute of Technology and other Universities in Gujarat.

Courses offered

i. Course Name	:	Master of Science (Physics)
Course Type	:	Grant in Aid
Intake	:	64
Eligibility	:	B.Sc. (Physics)
Specialization	:	Electronics
Duration	:	4 Semesters
Selection Process	:	By merit
Placement/Future Career Opportunity :		Industry, Research Organization, Self employment, Academic Institutes

ii. Course Name	:	Master of Science (Electronics Science)
Course Type	:	Grant in Aid
Intake	:	15 + 15 (higher fees)
Eligibility	:	B.Sc. (Electronics)
Specialization	:	-
Duration	:	4 Semesters
Selection Process	:	By merit
Placement/Future Career Opportunity :		Industry, Research Organization, Self employment, Academic Institutes

iii. Course Name : Advanced PG Diploma in Geoinformatics & Satellite Communication.

Course Type : Self Financed
Duration : Two Semesters
Intake : 15
Eligibility : Post Graduation in Science with Graduation in Physics/Electronics as main **OR** B.E/B.Tech.
Subjects offered/Specialization : Remote Sensing, GIS, Photogrammetry, Satellite Systems and Orbits, Satellite Communication and Navigation.
Selection Process : By merit
Fees : Rs. 20,000/- per Semester
Placement/Future Career Opportunity : ISRO centers, State Remote Sensing centers, GIS and RS industry, Telecom Industry, Research Organization, Self employment

iv. Course Name : M.Phil (Physics)

Course Type : Grant in Aid
Eligibility : M.Sc. (Physics)
Duration : 1 year (2 Semesters)
Selection Process : By entrance test

v. Course Name : Ph.D (Physics)

Course Type : Grant in Aid
Eligibility : M.Sc. (Physics)
Selection Process : By entrance test

vi. Course Name : Ph.D (Electronic Science)

Course Type : Grant in Aid
Eligibility : M.Sc. (Electronic Science)
Selection Process : By entrance test

Faculty Members

Name : **Dr. P. N. Gajjar**
Qualification : M.Sc., M.Phil., Ph.D.
Designation : Professor
Areas of Specialization : Condensed Mater Theory, Computational Materials Science
Contact No. : 26303041(Off) 25733891 (Res) 9427028248 (mobile)
Email : pngajjar@rediffmail.com

Name : **Dr. (Mrs.) R. B. Jotania**
Qualification : M.Sc., Ph.D.
Designation : Professor
Areas of Specialization : Nuclear Physics, Materials Science, Solid State Physics
Contact No. : 26303041 (Off) 27683150 (Res)
Email : rbjotnia@gmail.com

Name : **Dr. P. D. Lele**
Qualification : M.Sc., Ph.D.
Designation : Associate Professor
Areas of Specialization : Electronics, Ionospheric Physics, Physics Education
Contact No. : 26303041 (Off) 26305298 (Res)
Email : pdlele@hotmail.com

Name : **Dr. M. E. James**
Qualification : M.Sc., Ph.D.
Designation : Associate Professor
Areas of Specialization : Atmospheric Physics/ Meteorology
Contact No. : 26303041(Off) 26301191(Res) 9727172824(Mobile)
Email : me.james62@yahoo.com

Name : **Dr. (Mrs.) Deepti S. Tripathi**
Qualification : M.Sc., Ph.D.
Designation : Associate Professor
Areas of Specialization : Semiconductor Microwave Electronics
Contact No. : 26303041 (Off) 26761473 (Res)
Email : jha_deepti@hotmail.com

Name : **Dr. P. R. Vyas**
Qualification : M.Sc., Ph.D.
Designation : Associate Professor
Areas of Specialization : Theoretical Condensed Matter Physics
Contact No. : 26303041(Off) 22866472(Res) 922746727(Mobile)

Name : **Dr. V. A. Rana**
Qualification : M.Sc., Ph.D.
Designation : Associate Professor
Areas of Specialization : Microwave Dielectrics
Contact No. : 26303041 (Off) 02717 293362 (Res)
Email : ranava2001@yahoo.com

Name : **Dr. Utpal S. Joshi**
Qualification : M.Sc., Ph.D.
Designation : Associate Professor
Areas of Specialization : Experimental Condensed Matter, Electronics
Contact No. : 26303041 (Off) 26925686 (Res)
Email : usjoshi@gmail.com

Name : **Dr. S. M. Vyas**
Qualification : M.Sc., Ph.D.
Designation : Assistant Professor
Areas of Specialization : Condensed Matter Physics (Experiment)
Contact No. : 26303041 (Off) 9974022542 (Mobile)
Email : s_m_vyas_gu@hotmail.com