# Physics Department

## Faculty Profile

Name	Experience in years	Qualifications	Specialisation
Ms. D. Daruwalla Head of Department	35	M.Sc., M.Phil., D.H.E	Electronics
Dr. M. Deshpande	18	M. Sc., PhD,NET	Solid State Electronics
Mr. S. Dange	15	M. Sc., NET	Non linear dynamics
Ms. J. Mayekar	10	M.Sc., SET	Solid State Physics
Dr. Balakrishna	3	M.Sc, PhD	Electronics
Dr. Niyaz Ahmed K. C.	1	M.Sc., PhD	Physics

#### Courses covered

#### **Physics**

- Mechanics and Thermodynamics I
- <u>Vector Calculus I and Modern Physics</u>
- Mathematical Physics, waves and oscillations
- Electricity and Electronics
- Mechanics and Thermodynamics II
- Vector Calculus II and Analog Electronics
- Applied Physics I
- Optics and Digital Electronics
- Quantum Mechanics
- Applied Physics II
- Mathematical,Thermal and Statistical Physics
- <u>Electronics</u>
- Atomic and Molecular Physics
- Electrodynamics
- <u>Classical Mechanics</u>
- Solid state Physics

- Nuclear Physics
- Special Theory of Relativity
- Courses covered (Applied component:: Electronic Instrumentation)
- Analog circuits, Instruments and Consumer appliances
- <u>Digital Electronics, Microprocessor and it's applications, programming in C++</u>

#### Co- curricular/ Value addition activities

- Exhibition: projects and posters
- Quiz and debate competition
- Guest lectures from eminent speakers in the field of science
- Field visits to research institutions
- Poetry writing
- Departmental magazine
- Discussion club
- Conduct of NGPE (National Graduate Physics Examination)
- Certificate course in Astronomy
- Robotics workshop

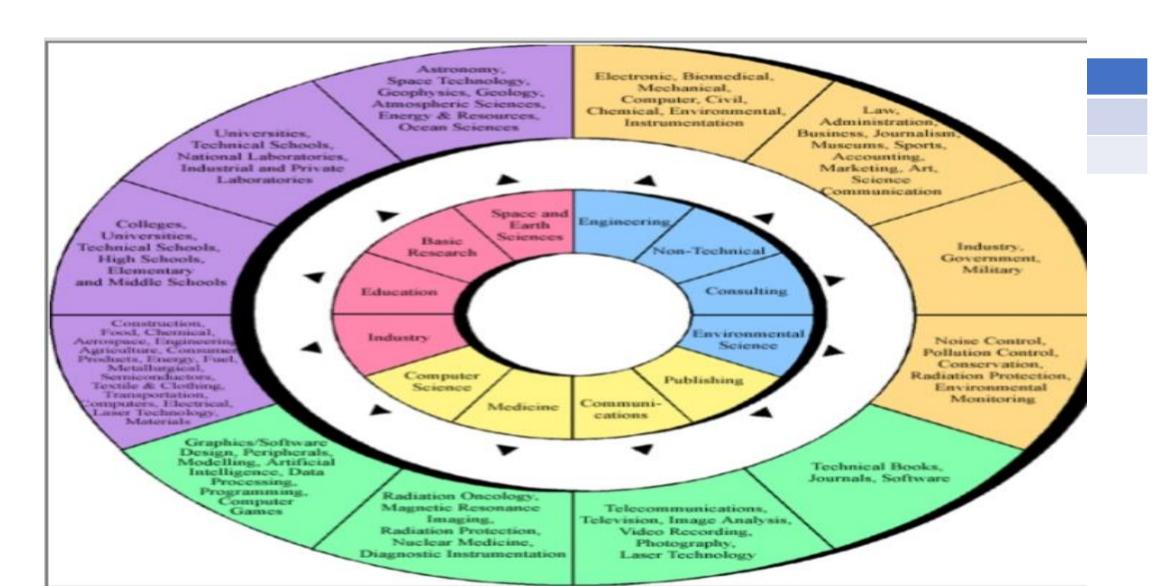
#### Unique features

- Our learner centric curriculum focuses on developing logical thinking, analytical skills, experimental learning skills as well as problem solving abilities
- Faculty is equipped with the latest innovations in teaching, learning and evaluation: use of simulations, tutorials, seminars in practicals, Google Classroom, Edmodo, Moodle
- Students are motivated to take up research projects
- Laboratories are periodically upgraded to provide a research environment
- The non-teaching faculty are encouraged to attend workshops to upgrade their technical skills for laboratory maintenance and handling of laboratory equipment
- Mentoring and guidance provided to students at all times

#### Importance

- Well designed syllabi approved by industry experts and eminent educationists
- Dynamic faculty
- Well equipped laboratories
- Physics society, under which a plethora of co-curricular activities is conducted

### Opportunities



#### Future plans

- Career guidance from well placed alumni
- Preparing students for IIT JAM entrance examination in terms of providing guidance and relevant references
- Encouraging students to participate in summer and winter school programs in esteemed research institutes
- Intercollegiate workshop on machine learning for faculty
- Workshop on study abroad opportunities

