

Mrs. Pallavi Dixit (M. Tech., M.Sc.)

Present position

- Assistant Professor

Contact Details

 020-67656064

 pallavi.dixit@fergusson.edu

Work Experience

- Since Teaching: 16 years
- Research/Industrial: 2 years

Personal Profile

I am Pallavi Dixit, a Physics Faculty at Fergusson College (Autonomous), Pune. My teaching experience spans diverse courses and student levels. I am committed to continuous improvement in pedagogy and evaluation, actively participating in syllabus revisions. My teaching philosophy emphasizes conceptual understanding through hands-on experimentation, fostering a student-centric learning environment.

Course(s) Taught

1. Mechanics
2. Electricity and Magnetism
3. Heat and Thermodynamics
4. Mathematical Methods in Physics
5. Principles and Applications of Optics
6. Astronomy and Astrophysics
7. Lasers
8. Emerging Physics
9. Modern Physics
10. Biophysics
11. Quantum Mechanics I
12. Quantum Mechanics II
13. Classical Electrodynamics
14. Physics in daily life
15. Oscillations waves and Optics
16. F.Y.B.Sc , S.Y.B.Sc , T.Y.Bsc. Laboratory course

Field of Specialization/Areas of Interests

- Light Scattering
- Fiber optics
- Nonlinear optics
- Computer simulations

Education

- **Master of Technology (Laser Science and Applications):** 2005
Devi Ahilya University Indore (M.P.)
- **Master of Science (Physics):** 2003
Devi Ahilya University Indore (M.P.)
- **Bachelor of Science (Mathematics, Physics, Computer science):** 2001
M.B. Khalsa College, Indore (M.P.)

Member of College Committees/ Professional Bodies and Others

College Level	Professional Bodies	Others
• Feedback Committee	Indian Association of Physics Teachers (IAPT)	Member of Program Advisory Committee (PAC) of Yashwantrao Chavan Maharashtra Open University
• Admission Committee		

Research Publications in National and International Journals

1. S. Manhas, M. K. Swami, P. Buddhiwant, N. Ghosh, P. K. Gupta and K. Singh, "Mueller matrix approach for discriminating optical rotation", OPTICS AND PHOTONICS NEWS 2006"
2. S. Manhas, M. K. Swami, P. Buddhiwant, N. Ghosh, P. K. Gupta and K. Singh "Mueller matrix approach for determination of optical rotation in chiral turbid media in backscattering geometry" OPTICS EXPRESS 2006 / Vol. 14, No. 1
3. M. K. Swami, S. Manhas, P. Buddhiwant, N. Ghosh, A. Uppal and P. K. Gupta "Polar decomposition of 3×3 Mueller matrix: a tool for quantitative tissue polarimetry" OPTICS EXPRESS 2006/ Vol. 14, No. 20
4. N. Ghosh, P. Buddhiwant, A. Uppal, S. K. Majumder, H. S. Patel, and P. K. Gupta "Simultaneous determination of size and refractive index of red blood cells by light scattering measurements" APPLIED PHYSICS LETTERS 2006, 88, No. 1

5. Pallavi C. Dixit, Supriya S. Patil, Sunil G. Kulkarni & Arvind D. Shaligram” Theoretical Modeling of Asymmetrically Inclined Fiber Optic Displacement Sensor: A Blended Approach” , fiber and integrated optics,2023, vol. 42, no. 6, 232–244,<https://doi.org/10.1080/01468030.2023.2291089>

Participation in Conferences/Seminars/Symposia/Workshop:

- Workshop on active learning and experimental problem solving at Homi Bhaba Centre for Science Education
- Faculty Development Program on Online Teaching & E-content
- One Week Pedagogical Training for Teachers on Tools for Online Teaching Learning and Evaluation
- “Learning Physics Through Simple Experiments” Online course by Prof. H.C.Verma
- One week FDP on Moodle Learning Management system
- One-week National FDP and Online training Scilab
- 'Effective and Efficient Online Teaching in the Age of Corona, A Hands On Workshop'
- NLS 2006 “Monitoring of Blood Hemolysis by Small Angle Light Scattering Spectroscopy”M.K. Swami, P. Buddhiwant, S. Manhas, A. Uppal, N. Ghosh and P.K. Gupta
- Pallavi C. Dixit, Supriya S. Patil, Arvind D. Shaligram “ Effect of beam shaping on the performance of fiber optic displacement sensor”,National conference on Advances in electronics and its interdisciplinary applications, page no.205,19-20 september 2014 ,ISBN 97-893-5174-783-3
- ORAL PRESENTATION Mrs. Pallavi Chetan Dixit, 21st National Conference on Solid State Nuclear Track Detectors and Their Applications (SSNTDs-21) “Use of fiber optic displacement sensor for humidity sensing application”,29-31 January, 2021 Department of Physics, Organized by Ramjas College and Department of Physics & Astrophysics, University of Delhi In Collaboration with Nuclear Track Society of India (NTSI)
- MS-DEED Level 1 Workshop on effective Teaching Learning for Undergraduate Teachers from 03-09-2023 to 05-09-2023.

Events Organized/Coordinated:

Sr. No	Name of the Event	Name of organizing Institute/ College/ University	Nature of contribution	Dates
1	Annual Physics Exhibition	Fergusson College, Pune	Coordinator	Every year
2	Vigyan Bharati Sammelan	Fergusson College, Pune	Member of Organizing commitee	10-13 May 2017
3	Conference on vedic science	Fergusson College, Pune	Member of Organizing commitee	11-12 Jan 2014

Course Content Developed (e-content)

Video lectures on following Topic:

- Optics
- Lasers
- Electricity and magnetism
- Electrodynamics

Content Writing:

- E-Pg pathshala content writer for lasers
- Chapter Writer for book on Electricity and Magnetism.

Consultancy Services

- Participation in consultancy services provided by college to KPIT PVT.LIMITED company Pune.(KPIT Recruitment drive 2021)