Pallavi Chetan Dixit

Present position

- **Assistant Professor**

Contact Details (Mention e-mail) – fergusson.edu or despune.org

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Work Experience

- **Teaching: 14 years**
- **Research: 6 years**

Personal Profile

I, Pallavi Dixit, Faculty at Department of Physics, Fergusson College (Autonomous), Pune. I have taught a variety of courses to the students at various levels. I have participated in various syllabus revision workshops. I constantly took efforts to learn different techniques of pedagogy and evaluation. I focus on conceptual learning through experimentation. I believe in student centric education.

Course(s) Taught (Only Titles)

1. Mechanics
2. Electricity and Magnetism
3. Heat and Thermodynamics
4. Mathematical methods in Physics I and II
5. Optics
6. Astronomy and Astrophysics
7. Lasers
8. Emerging Physics
9. Modern Physics
10. Biophysics
11. Quantum Mechanics I and II
12. Classical Electrodynamics
13. Practical courses of F.Y.B.Sc., S.Y.B.Sc., T.Y.B.Sc., M.Sc.

Areas of Interests

- Optics
- Lasers
- Fiber optic sensors

Education

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

Member of College Committees/ Professional Bodies and Others

College Level	Professional Bodies
• SYBSC Admission Committee (2014-2021) • FYBSC Admission Committee (2010-2013) • Feedback coordinator (Department) • Time table and workload coordinator (Department)	Indian association of Physics Teachers (IAPT)

Research Publications in National and International Journals

1. S. Manhas, M. K. Swami, **P. Buddhiwant**, N. Ghosh, P. K. Gupta and K. Singh, OPTICS AND PHOTONICS NEWS 2006" Muller matrix approach for discriminating optical rotation".
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. **P. Buddhiwant**, M. K. Swami, S. Manhas, N. Ghosh and P. K. Gupta "A Fourier transform based approach for determination of size and refractive index of red blood cells from light scattering measurements", PHOTONICS 2006.

Participation in Conferences/Seminars/Symposia/Workshop:

1. 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.
2. **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, 19-20th September 2014, ISBN 97-893-5174-783-3.
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).

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 committee	10-13 May 2017
3	Conference on vedic science	Fergusson College, Pune	Member of Organizing committee	11-12 Jan 2014

Additional skills/Activities

1. Active participation in syllabus revision pre and post autonomy period. Participated in various syllabus revision workshops at UG and PG level.
2. Teacher Coordinator for Annual Physics Exhibition.
3. Laboratory incharge of F. Y. B. Sc. and S. Y. B. Sc. laboratory courses and worked on upgradation and improvement of laboratories.
4. Laboratory Handbook upgradation
5. Started various new practices for the assessment of students in autonomy.
6. Member of organizing committee of conference on Vedic science 2014 and 2015.
7. Member of Organizing committee of conference on National conference on advanced materials and Applications-2016.
8. Contributed in organizing 3-days exhibition on ‘MangalYaan’.

Course Content Developed (e-content)

Video lecture: (Available on MS stream)

1. Principles and Applications of Optics
2. Lasers
3. Electricity and magnetism
4. Electrodynamics
5. E-Pg pathshala content writer for lasers

Consultancy Services

KPIT Recruitment drive 2021, KPIT Pvt. Limited