



## Shivaji College Faculty Details

| Title   | First Name   | Last Name       | Photograph |
|---|--|-----------------|------------|
| Ms.   | PREETIKA   | DHAWAN          |            |
| <b>Designation</b>  | Assistant Professor  |                 |            |
| <b>Office Address</b>   | Dept. Of Physics, Shivaji College  |                 |            |
| <b>Office Phone No.</b>   | 011-25116644   |                 |            |
| <b>Residence</b>  | New Delhi  |                 |            |
| <b>Mobile</b>   |  |                 |            |
| <b>Email</b>  | <a href="mailto:preetika@shivaji.du.ac.in">preetika@shivaji.du.ac.in</a> |                 |            |
| <b>Web-Page</b>   |  |                 |            |
| <b>Educational Qualifications</b>   | M. Sc- Gold Medalist   |                 |            |
| <b>Degree</b>   | <b>University/Institute</b>  | <b>Division</b> |            |
| <b>PG</b>   | Hansraj College, University Of Delhi                                     | First           |            |
| <b>UG</b>   | Hansraj College, University Of Delhi                                     | First           |            |
| <b>Any Other Qualification</b>  | Diploma in Computer Applications (RCSM)                                  |                 |            |
| <b>Career Profile</b>   |  |                 |            |
| <p style="text-align: center;">Working as an Assistant Professor in the Physics Department of Shivaji College since Jan 2017 and has been involved in evaluating, monitoring, supervising and mentoring student progress in terms of academic and professional development.</p> |  |                 |            |

### Administrative Assignments

- Currently working as a member of Research & Innovation Cell of Shivaji College.

### Areas of Interest/ Specialisation

- Electronics
- Advance Numerical Techniques
- Solid State Physics

### Languages Known

MS Office  
C++, C with Advance Numerical Techniques  
FORTRAN, SCILAB  
LaTeX.  
English and Hindi.

### Subjects Taught

#### Theory Papers

- Solid State Physics
- Elements of Modern Physics
- Waves and Optics

#### Practical Labs

- Analog System and Applications
- Advance Mathematical Physics – I
- Solid State Physics
- Computational Physics
- Mechanics
- Thermal Physics
- Waves and Optics

### Innovation Project/Research Projects (Major Grants/Research Collaboration)

- Principal Investigator of the project entitled **“Tracing the Terrestrial – Remote Operated Spy Robot with Joystick Steering Control System”** under Intramural Research Scheme of Shivaji College during 2021- till date.
- Research Project at National Centre for Radio Astrophysics, Pune on **“Tracing the X-Ray emission from Sn 2009ip”** in June- July 2014.
- Research Project at Institute for Plasma Research, Gujarat on **“Characterization of Hot Filament Discharge Plasma by Langmuir Probe Diagnostics and Line Intensity Ratio Methods”** in June- July 2015.

**Conference/Seminar/Faculty Development Programme/Workshop**

- Participated in a workshop on **“Functional Analysis and Troubleshooting of Electronic Devices for Biotechnology and Biomedical Applications”** at Hansraj College, Delhi University in March 2014.
- Participated in The Thirteenth Dr. B. N. Singh Memorial Lecture **“Technological Advancements in Defence R&D (DRDO)”** in September 2015 at Department of Physics and Astrophysics, University of Delhi.
- Attended seminars and colloquiums presented at NCRA, Pune.
- Attended seminars and lecture series, colloquiums presented at IPR, Gujarat from June 1, 2015- June 9, 2015.
- Participated in the Excursion trips to **FCIPT, ITER- India, ISRO- Ahmedabad** during June- July 2015.
- Participated in a program **“An afternoon with Sunita Williams”** in 2016 at Department of Physics and Astrophysics, University of Delhi.
- Attended a workshop on **“Different Strategies of Teaching and Learning”** on Aug 6, 2016.
- Organized and Participated in the Annual Workshop **“PRATIBIMB”** in Jan 2017 at Shivaji College.
- Participated in the **National Science Day Program** at IUAC, Delhi in Feb 2017.
- Participated in the SCILAB **Faculty Development workshop** at Hansraj College in September 2017.
- Participated in the **Faculty Development Program** on “Applied Physics and Embedded System Design” held at Rajdhani College in December 2017.
- Organized the Annual Departmental Festival **INVENIO-2017**.
- Organized the Annual Departmental Festival **INVENIO-2018**.
- Organized and Participated in Lecture **“Semiconductor Opto-Electronic Devices : A Perspective”** by Prof. M. R. Shenoy, IIT Delhi in Oct 2017 at Shivaji College.
- Organized and Participated in the Annual Workshop **“SPECTRUM”** on 12th Feb 2018 at Shivaji College.
- Organized and Participated in the CSIR Sponsored First National Conference on **“Current and Future Perspectives in Nanotechnology : Nanoworld 2018”** on 12-13th April 2018 at Shivaji College.
- Attended 2 days National Seminar on **“New Trends in Nanotechnology and Applications NTNA- 2018”** at ARSD College on 27-28 Sept 2018.
- Organized and Attended the Lecture Series as a part of INVENIO Society event on 1 Nov 2018.
- Attended Faculty Development Program on **“Advancements in Integrated Sciences: Learning and Adaptation for Effective Teaching and Research”** at Shyam Lal College from 10-16 Dec 2018.
- Participated in **International Entrepreneurial Summit 2019 on “Entrepreneurship Development through Ecotourism in North East India”** at Shivaji College on 14-15<sup>th</sup> Feb 2019.
- **Participated in the International Conference on Advances in Smart Materials & Emerging Technologies (ASMET-2020)** at Indira Gandhi Delhi Technical University for Women (IGDTUW) from January 23-24, 2020.
- Has secured Runner up award for Best Innovative and Entrepreneurial Idea in **Two-day workshop on Grant Writing Process for Innovative and Entrepreneurial ideas** jointly organized by Chitkara University, Punjab, and IGDTUW, Delhi, on July 30<sup>th</sup>-31<sup>st</sup> 2020.
- Participated in one-week online Faculty Development program, **ICT ENHANCED TEACHING LEARNING AND CREATING MOOCs**, Organized by Teaching Learning Centre Ramanujan College University of Delhi, and IQAC, Shivaji College University of Delhi, from August 18<sup>th</sup> -25<sup>th</sup> 2020 (A+ grade)

- Organizing member in the International Webinar on **Recent trends in Material Sciences**, Organized by Department of Physics, Shivaji college, on October 10<sup>th</sup> 2020.
- Organizing member in the International Webinar on **Era of Optical clocks**, Organized by Department of Physics, Shivaji college, on December 4<sup>th</sup> 2020.
- Has participated in International Webinar on **After the bomb – Life Story of a Hibakusha**, under NUCLEAR ENERGY IMPACT AWARENESS PROGRAMME, organized by RESEARCH CELL in association with ICAN and PEACE BOAT, Bhagini Nivedita College, DU from January 30<sup>th</sup>- February 6<sup>th</sup> 2021.
- Organizing member cum participant of National Webinar on **The Behavior of Light: Wave or Particle**, organized by Dept of Physical Science, Shivaji College on February 8<sup>th</sup> 2021.
- Participated in **International Conclave on Contemporary Physics The New Paradigm shift -II Series**, Organized by IQAC, Rajdhani College, University of Delhi, held from February 27<sup>th</sup> -28<sup>th</sup> 2021.
- Participated in **Programming and Software tools for UG Courses**, 3 days Online Workshop organized by Rajdhani College, University of Delhi, held from March 19<sup>th</sup>-21<sup>st</sup> 2021.
- Organizing member of the Physics Department **Alumni Talk** held on August 27<sup>th</sup> 2021.
- Organizing member of the **National Webinar** on “Art of Academic Writing: A systematic approach” on September 4<sup>th</sup> 2021 (Research & Innovation Cell).
- Participated in the one-week **International Faculty Development Programme (IP-03) on "Materials Characterization: Experimental And Theoretical Aspects"** (September 20<sup>th</sup> - 24<sup>th</sup>, 2021)

#### Awards and Distinctions

- Awarded **Dr. K.S. Krishnan Gold Medal** at Annual Convocation 2017 in Delhi University, solicited by the Hon'ble President of India, Mr. Ram Nath Kovind.
- Awarded **Gold Medal** from Mrs.Mridula Sinha, the Hon'ble Governor of Goa at Hansraj College in 2017.
- Certified Ist Rank in Delhi University in M.Sc Physics.
- Certified IInd Rank in Delhi University in B.Sc (H) Physics.
- **CSIR NET - 2015** Qualified.
- **GATE 2016** Qualified.
- Selected for **CBSE- XII Scholarship**.
- Awarded **UGC- Post Graduation Scholarship for University Rank Holder (URH)**.
- Awarded **INSPIRE Scholarship Award -SHE** for being in Top 1 % in CBSE School level for five years.
- Provisionally Selected for **INSPIRE- DST Fellowship**.
- Has secured Runner up award for Best Innovative and Entrepreneurial Idea in **Two-day workshop on Grant Writing Process for Innovative and Entrepreneurial ideas** jointly organized by Chitkara University, Punjab, and IGDTUW, Delhi, on July 30<sup>th</sup>-31<sup>st</sup> 2020.

#### Memberships

1 year subscription to RESONANCE magazine (from Indian Academy of Sciences) in 2014-15.

#### Other Academic Activities

Participated in Educational Excursions to the following places:

- NPL, Delhi
- Fab lab at Delhi University
- GMRT-Pune (June 2014)
- FCIPT, Gujarat (June 2015)
- ITER- India, Gujarat (June 2015)
- ISRO- Ahmedabad, Gujarat ( June 2015)

- ADITYA Tokamak Unit, Basic Plasma Lab- BETA, SST-1 Tokamak, NBI Lab, Diagnostic Lab, RF Lab, Large Volume Plasma Device (LVPD) at IPR, Gujarat (June 2015).
- Indian Meteorological Department, Delhi (2016)
- IUAC, Delhi (Feb 2017)
- CSIR- Institute of Genomics and Integrative Biology ( Dec 2018).
- Vigyan Samagam, National Science Centre (Feb 2020)
- SSPL, DRDO (Feb 2020)

Worked as Examiner for the conduct of practical exams, paper setting and evaluation.

#### **Cultural/Extracurricular Activities**

- Organized various events like Seminars, Workshops, Webinars, Alumni Talk, Excursion trips for the Physics Department.
- Worked as the Secretary of Cultural Awareness at College in 2014.

*Preetika Dhawan*

**Signature of Faculty Member**