


Title	<b>Dr.</b>	First Name	<b>PRATIBHA</b>	Last Name	<b>TIWARI</b>	Photograph
Designation	<b>Assistant Professor</b>					
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<b>Educational Qualifications M. Sc., Ph. D</b>						
<b>Degree</b>	<b>Institution</b>				<b>Year</b>	
<b>B.Sc.(H) Chemistry</b>	<b>BANARAS HINDU UNIVERSITY</b>				<b>2001</b>	
<b>M.Sc. (Chemistry)</b>	<b>BANARAS HINDU UNIVERSITY</b>				<b>2003</b>	
<b>Ph.D.</b>	<b>University of Delhi and National Physical Laboratory (Joint Collaboration)</b>				<b>2009</b> <i><u>Thesis Title: Preparation, Characterization and Application of Some Nanomaterials to Glucose Biosensor under the supervision of Prof. Monika Datta and Dr.B.D.Malhotra (Head of BECPRG NPL)</u></i>	

Any other qualification	<b>Qualified NET JRF</b>	<b>2004</b>
<b>Career Profile</b>		
<ul style="list-style-type: none"> <li>• <b>Research Associate (April 3, 2009 – 15 Aug, 2008)</b> – Biomolecular Electronics &amp; Conducting Polymer Research Group. National Physical Laboratory, Dr. K.S. Krishnan Marg New Delhi – 110012, India</li> <li>• <b>Adhoc Experience: Assistant Professor (August 16, 2009 – December 22, 2010)</b> – Department of Chemistry, Atma Ram Sanatan Dharna College, University of Delhi, New Delhi – 110021, India</li> <li>• <b>Permanent: Assistant Professor (December 23, 2010 – till date)</b> – Department of Chemistry, Hansraj College, University of Delhi, New Delhi – 110007, India</li> <li>• Works as an <b>Academic Counsellor for BSC Programme</b> for courses CHE2, CHE3L, CHE7L, CHE9, CHE11L, CHE12L.</li> </ul>		

## Publications Profile

1. Application of Thiolated Gold Nanoparticles for Enhancement of Glucose Oxidase Activity, Pratibha Pandey, Surinder P. Singh, Sunil K. Arya, Vinay Gupta, Monika Datta, Sukhvir Singh, Bansi D. Malhotra, *Langmuir*, 23, 2007, 3333.
2. Dithiobissuccinimidyl Propionate Self-assembled Monolayer Based Cholesterol Biosensor, Sunil K. Arya, Pratibha Pandey, Surinder P. Singh, Monika Datta, Bansi D. Malhotra, *Analyst*, 2007, 132, 1005.
3. Cholesterol biosensor based on rf sputtered zinc oxide nanoporous thin film, S.P. Singh, S. K. Arya, Pratibha Pandey, S. Saha, K. Sreenivas, B. D. Malhotra, V. Gupta. *Appl. Phys. Letters*, 91, 063901-2007.
4. Gold Nanoparticle-Polyaniline Composite films for glucose sensing, Pratibha Pandey, S. P. Singh, Sunil K. Arya, Anju Sharma, Monika Datta, Bansi D. Malhotra, *Journal of Nanoscience and Nanotechnology* Vol.8, 1–6, 2008
5. Prospects of Nanomaterials to Biosensors, Pratibha Pandey, Monika Datta, Bansi D. Malhotra, *Analytical Letters*, 2008, 41,157
6. poly-3-hexylthiophene-Gold Nanoparticles Composite Film for Application to Glucose Sensor, Pratibha Pandey, Sunil K. Arya, Zimple Matharu, S. P. Singh, Monika Datta, Bansi D. Malhotra, (*J. Appl. Poly. Sci.* 110, 2008, 988–994.
7. Glucose biosensor based on iron oxide nanoparticles-chitosan composite film, Ajeet Kaushik, Raju Khana, Pratima R Solankia, Pratibha Pandey, Javed Alam, Sharif Ahmad, B. D. Malhotra, (*Biosensors and Bioelectronics*, 24, 676–683, 2008
8. Calorimetric detection of Nucleic Acid signature of Shiga toxin producing Escherichia coli using Gold nanoparticles, Anurag Jyoti, Pratibha Pandey, Surinder Pal Singh, Swatantra Kumar Jain, Rishi Shanker, *Journal of Nanoscience and Nanotechnology*, 10, 1-5, 2010
9. Sol-Gel Derived Nanoporous Cerium Oxide –Titanium Oxide Platform for Glucose Sensor, Anees Ansari, Pratibha Pandey, B. D. Malhotra *Advanced Science, Engineering & Medicine* Vol .5, pp,1-7,2013.

## Book and Book Chapters:

Book on “Application of Some Nanomaterials to Glucose Biosensor” by Pratibha Pandey, Monika Datta, Bansi D. Malhotra. Lambert Academic Publishing, Germany, 2011.

## Conferences /Symposia/Seminars/Workshops attended

- ❖ **Mathura, India;** DST sponsored National Workshop on Polymeric Sensors, held at the Hindustan College of Science and Technology, 25th July – 6th August 2005.
- ❖ **Delhi, India;** Immobilization of Biomolecules on Nanoparticles for development of Biosensors, Pratibha Pandey, S. P. Singh, Sunil K. Arya, Monika Datta and B.D. Malhotra presented in 3rd National conference on Biotech 2005-Concept to commercialization by Biotechnology Society of India at Manesar, Gurgaon, Haryana, 22-24 December' 2005 organized by Centre for Biotechnology, JNU, (won best poster award).
- ❖ **Delhi, India;** Development of mediator based cholesterol biosensor by Pratima R. Solanki, Sunil Arya, Kavita Arora, Nirmal Prabhakar, Pratibha Pandey, M K Pandey, S P Singh, B D Malhotra, presented at VIII National Workshop on Science and Technology of Sensors based on nanomaterials 18-31 august, 2005.
- ❖ **Mumbai, India;** Gold nanoparticle-Polypyrrole nanocomposite thin film for glucose biosensor Pratibha Pandey, Pratima Solanki, S. P. Singh, Sunil K. Arya, Monika Datta, Bansi D. Malhotra presented at DM-BNFL, ISEAC, BARC 23-25 September 2006.
- ❖ **Delhi, India ;** Detection of water and food-borne pathogenic bacteria using gold nanoparticles, Anurag Jyoti, Pratibha Pandey, B.D. Malhotra, S. P. Singh and Rishi Shanker, presented at MNNA 20-21 Dec 2006.
- ❖ **Delhi, India;** Inspire internship program-2012, organized by Hansraj College, University of Delhi, 17-21,2012.
- ❖ **Delhi, India;** Chemistry in Interdisciplinary Applications, organized by Hansraj College, University of Delhi, 19<sup>th</sup> March, 2013
- ❖ **Delhi, India;** National Conference in Chemistry on Environment & Harmonious Deavlopment organized by Department of Chemistry, Shyamlal College, University of Delhi, 7-8 April 2016.
- ❖ **Delhi, India;** Training Programme in Science Communication organized by CIC- Centre for Science Education and Communication, 20-22 Dec, 2016
- ❖ **Delhi, India;** Faculty Development workshop on Embedded Systems and Synthesis of Nano-materials, 6-7 Jan 2017
- ❖ **Delhi, India;** Role of Technical terms in Higher Education organized by Commission for Scientific and Technical terminology, Ministry of Human Resource Development (Department of Higher Education) Ramakrishnapuram, 23-24 july 2017.
- ❖ **Delhi, India;** Oncocon 2017 The Mega Cancer Convention in Delhi-NCR organized by Max institute of Cancer Care 17<sup>th</sup> Dec 2017
- ❖ **Delhi, INDIA;** National Seminar on Environment and Sustainability in third World organized By Department of Chemistry &IQAC, Hansraj College on 28<sup>th</sup> February 2020.
- ❖ Three Day **Webinar** “covid -19, Challenges and Road Ahead” (7-9 May, 2020) organized by Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi.

## Professional Development Activities

### ➤ Seminars/ workshops organized

- Member of Organizing Committee in Workshop on Relevance of Experimental Chemistry To Biotechnology on 12-13 March 2014.
- Member of organizing committee in Indo-Portugese Workshop on Emerging Trends of Nanotechnology in Chemistry and Biology (INCB), on 12-13 Feb 2016.
- Member of Organizing committee in the National Seminar on Role of Analytical Sciences in Sustainable Development held at Hansraj College, 2016.
- Member of Organizing committee in the International Conference on Intergative Chemistry, Biology, and Translational Medicine (ICBTM) at Hansraj College, 25-26 Feb 2019.
- Convener, One day workshop on Hands on Training Programme organized by Department of Chemistry & IQAC, Hansraj College on 13 and 15 June 2019.
- Member of Advisory Committee, National Seminar on Environment and Sustainability in third World organized by Department of Chemistry & IQAC, Hansraj College on 28<sup>th</sup> February 2020.

### ➤ Orientation Programmes/ Refresher Courses/Faculty Development Programme

- Participated in UGC sponsored Orientation Programme organized by CPDHE, University of Delhi OR-75 from 5-15<sup>th</sup> Oct, 9-19<sup>th</sup> Nov, and 14-20 Dec 2013c.
- Participated in UGC sponsored Refresher Course in Chemistry organized by CPDHE, University of Delhi from 26<sup>th</sup> June 2015-16<sup>th</sup> July 2015.
- Participated in UGC sponsored Refresher Course in Contemporary issues of the world organized by CPDHE, University of Delhi from 27<sup>th</sup> November 2018-17<sup>th</sup> December 2018.
- Participated in Annual Refresher Programm in Teaching by MHRD in Chemistry from 1<sup>st</sup> September-31<sup>st</sup> December 2020.
- Participated in two week online Faculty Development Programme on Advanced Concepts for Developing MOOCS organized by MHRD and Ramanujan College, University of Delhi from 1<sup>st</sup> July-16<sup>th</sup> July 2020.

### ➤ Undergraduate Projects

- Research Project awarded under Innovation Projects Schemes (2015-16) HRC 309: "development of visible light photocatalyst for waste water treatment"" Dr Pratibha Pandey, Dr Maya Verma, Dr Hema Chutani.

### ➤ Poster Presented

- ❖ Poster Presented on Immobilization of Biomolecules on Nanoparticles for development of Biosensors, in 3rd National conference on Biotech 2005-Concept to commercialization by Biotechnology Society of India at Manesar, Gurgaon, Haryana, 22-24 December' 2005 organized by Centre for Biotechnology, JNU, (won best poster award).
- ❖ Poster Presented on Development of mediator based cholesterol biosensor at VIII National Workshop on Science and Technology of Sensors based on nanomaterials 18-31 August, 2005.
- ❖ Poster Presented on Gold nanoparticle-Polypyrrole nanocomposite thin film for glucose biosensor at DM-BNFL, ISEAC, BARC 23-25 September 2006
- ❖ Detection of water and food-borne pathogenic bacteria using gold nanoparticles at MNNA 20-21 Dec 2006.

### ➤ Brief talks in Workshops

- ❖ Presented work in the Conference on Environment & Harmonious Development organized by Department of Chemistry, Shyamlal College, University of Delhi, 7-8 April 2016.

## Administrative Assignments

- Member of Apparatus committee of Department, 2013-14
- Member of Chemical Society, of Department, 2013-14.
- Member of Chemical Store, of Department, 2014-15.
- **Convener** of Library Committee of Department, 2014-15.
- Member of Students Welfare Committee (Discipline & Attendance Committee (2014-15)
- **Convener** of Chemical Store, of Department , 2015-16.
- Member of Chemical Society, of Department , 2015-16.
- **Convener** of Chemical Store, of Department , 2016-17.
- **Member** of Library Committee of Department , 2018-19.
- **Member of Chemical Store** Committee of Department , 2018-19..
- Member of Environmental Awareness Committee (2015-16)
- Member of Students Welfare Committee (Discipline & Attendance Committee (2015-16)
- Member of Cantene Committee, 2016-17
- Member of Environmental Awareness Committee (2016-17)
- Member of admission committee, 2018-19
- Member of Environmental Awareness Committee (2018-19)
- Member of Cantene Committee, 2018-19
- Member of admission committee, 2019-20
- **Teacher in-charge**, 2019-20.
- **Superintendent Practical Examinations** May-June 2019.
- **Superintendent Practical Examinations** November 2019.
- **Convener** of Lab Staff Committee of Department 2019-20
- Member of Environment Awareness Committee, 2018-19.
- Member of Environment Awareness Committee, 2019-20.
- Member of Women's Development Committee, 2019-20.
- Member of Election Committee in students' union elections 2019.
- **Convener, Chemical Society**, Department of Chemistry, 2020-21..

#### Association With Professional Bodies

- Lifetime member of 'Material Research Society membership no.: LM 07
- Lifetime member of Indian Society of Analytical Scientists

#### Skills

##### Instrumentation Skills

TGA, DTA, DSC, FTIR, PXRD, SEM, TEM, DLS, UV-Vis Spectrophotometer, EDAX, NMR

##### Computer Proficiency

MS Word, MS Excel, MS Power Point, Chem Draw, Sci-finder, Origin, G-Suite applications.

**Dr. Pratibha Tiwari**



