

**(Self-Declared Document)**

**Name** Dr.PoushpiDwivedi

**Designation** Assistant Professor

**Name of the Department** Department of Chemistry

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Belda, Paschim Medinipur, West Bengal,  
INDIA 721424

**Educational Qualification:**

<b><u>Degree Name</u></b>	<b><u>Institute</u></b>	<b><u>Year of passing/awarded</u></b>
B.Sc. (Honours) Chemistry	Banaras Hindu University	2001
M.Sc. Chemistry	Banaras Hindu University	2003
Ph.D. Chemistry	Motilal Nehru National Institute of Technology Allahabad	2015
B.Sc. Teaching Technology	Sikkim Manipal University	2008

**Career Profile/Teaching Experience**

Teaching (Temporary) – Guest Faculty, Department of Chemistry, University of Allahabad, Prayagraj, INDIA, from 21/9/2016 to 16/3/2017

Teaching (Regular) – Assistant Professor, Department of Chemistry, Belda College (Vidyasagar University), Paschim Medinipur, West Bengal – 721424, INDIA, from 18/8/2020

**Research Experience**

Research (Temporary) – Post Doctoral Fellow, Department of Chemical Engineering and Technology, Indian Institute of Technology, (Banaras Hindu University), Varanasi, INDIA, from 17/3/2017 to 17/8/2017

Research (Temporary) –National Post Doctoral Fellow, Department of Chemistry, Indian Institute of Technology, (Banaras Hindu University), Varanasi, INDIA, from 19/8/2017 to 18/8/2019

**Specialization/Research Area**

Specialization: Analytical Chemistry

Research Area: Interdisciplinary Areas of Chemistry; Green Chemistry; Nanotechnology - Nanobiotechnology, Nanomedicine, Nanobiomaterials; Phytochemicals; Biomolecules; Health Care; Synthesis; Catalysis; Energy; Functional materials; Waste to Value Conversion

### Course/ Subject Taught

**B.Sc. (Hons.) Chemistry**

**M.Sc. Chemistry**

**DSC**

**General**

### Publications in Journal / Book / Book Chapter

#### Papers

<u>Title of the Paper</u>	<u>Journal Name with ISSN, Vol. etc.</u>	<u>Year of Publication</u>
Chitosan Modification through Natural Route: Development of Ag/CS-g-PAAm using <i>Curcuma longa</i>	Journal of Chinese Medicine Research and Development, 1, 23-27, 2303-9353	2012
Potentiality of the Plant <i>Pseudotsuga menzietii</i> to Combat Implant Related Infection in the Nanoregime	International Journal of Biomedical Nanoscience and Nanotechnology, 2, 187-206, 1756-0802	2012
Green Route to a Novel Ag/PLGA Bionanocomposite: A Self-sterilizing Surgical Suture Biomaterial	International Journal of Advances in Engineering, Science and Technology, 2, 236-243, 2249-913X	2012
A Novel Ag/CS-PVC Nanomaterial with High Antimicrobial Properties: A Potential Self-sterilizing Biomaterial	International Journal of Scientific and Research Publications, 2, 1-5, 2250-3153	2012
Mythology Converges with Technology to Combat Biomaterials Associated Infections	International Journal of Engineering Research and Applications, 2, 1490-1495, 2248-9622	2012
Rudraksha Assisted Generation of Silver Nanoparticles for Integrated Application in the Biomedical Landscape	International Journal of Green Nanotechnology, 4, 248-261, 1943-0906	2012
Application of Polymer Nanocomposites in the Nanomedicine Landscape: Envisaging Strategies to Combat Implant Associated Infections	Journal of Applied Biomaterials and Funnnctional Materials, 11, 129-142, 2280-8000	2013
Phytofabrication characterization and comparative analysis of Ag nanoparticles by diverse biochemicals from <i>Elaeocarpus ganitrus Roxb.</i> , <i>Terminalia arjuna Roxb.</i> , <i>Pseudotsuga menzietii</i> , <i>Prosopis spicigera</i> , <i>Ficus religiosa</i> , <i>Ocimum sanctum</i> , <i>Curcuma longa</i>	Industrial Crops and Products, 54, 22-31, 0926-6690	2014
Novel Scientific Appraisal of <i>Elaeocarpus ganitrus</i> the Rudraksha: Nano Silver Synthesis with Aspects of Variation in Concentration Antimicrobial Activity and <i>In vitro</i> Biocompatibility	Annual Research & Review in Biology, 4, 1059-1069, 2347-565X	2014

Overwhelming Antibacterial Activity by <i>Terminalia arjuna</i> Aided Herbal Ag/CS-PVC: Nanocomposite for Overcoming Biomaterials Associated Infections	Advanced Science, Engineering and Medicine, 7, 82-90, 2164-6635	2015
Coating Made from <i>Pseudotsuga menziesii</i> Phytosynthesized Silver Nanoparticles is Efficient against <i>Staphylococcus aureus</i> Biofilm Formation	Nano LIFE, 5, 1540006 (12 pp.), 1793-9852	2015
Catalytic Application of CaO and ZnO Nanoparticles for Energy Generation and Viable Waste Management Technique: A Perspective for Sustainable Environment	International Journal of Research in Electronics and Computer Engineering, 6, 14-20, 2348-2281	2018
Non-biodegradable Polymeric Waste Pyrolysis for Energy Recovery	Heliyon, 5, 1-15, 2405-8440	2019
MgO/CaO Nanostructures Fabricated from Trimmed-off Human Finger and Toe Nails	Nano-Structures & Nano-Objects, 22, 100485 (7 pp.), 2352-507X	2020
Bi-Functional Pd/Y-Zeolite Reforming Nanocatalyst Engineered Employing Polyvinylpyrrolidone and 2-(3,4-Epoxy-cyclohexyl)Ethyltrimethoxysilane	Advanced Science, Engineering and Medicine, 12, 548-555, 2164-6635	2020
<i>Curcuma longa</i> Aided Ag/CS Nanocomposite Coating of Surfaces as SARS-CoV-2 Contamination Minimizing Measure Towards Containment of COVID-19: A Perspective	Letters in Applied NanoBioScience, 9, 1485-1493, 2284-6808	2020
Dual approach transformation of human finger and toe nail pruning into MgO/CaO nanoalloy	Inorganic Chemistry Communications, 126, 108479, 1387-7003	2021
<b>Book/Book Chapter</b>		
<b>Title of the Book</b>	<b>Publication Name with ISSN , Vol etc.</b>	<b>Year of Publication</b>
Silver Nanoparticles and Nanocomposites, In: Encyclopedia of Biomedical Polymers and Polymeric Biomaterials	CRC Press, Taylor & Francis Group, 9781439898796 – CAT#K14324 Vol 10, 7275-7285,	2015
Valorization of Cellulosic and SAP Based Baby Diaper Waste into Functional Products: Analyses and Bioenergy Potential	Springer Nature Singapore Pte Ltd.	2021
<b>Book:</b> Nanobiotechnology for safe bioactive nanobiomaterials	CRC Press, Taylor & Francis Group, 978-1-032-10845-2 978-1-003-21734-3	2022
<b>Conference /Seminar/Workshop Attended/Organised</b>		
<b>1. Conference proceedings:</b>		
[1] P. Dwivedi, et al.; Green Synthesis of a Silver - Bionanocomposite and its Application in Biomedical Engineering: A Perspective towards Combating Implant Related Infection; <i>Mindshare</i> , Vol. 1, 2010, 84-90, ISSN-2229-4872. Issued by Amity School of Engineering & Technology & Department of Physics, University of Lucknow		

Proceedings of 3<sup>rd</sup> National Conference on Nanomaterials and Nanotechnology, 21-23 December 2010.

- [2] **P. Dwivedi**, S. S. Narvi and R. P. Tewari; Natural Route to a Novel Nanocomposite Biomaterial: An Embodiment for the Abatement of Implant Associated Infection; *IEEE Xplore*, 2011, 1-4, ISBN-978-1-4577-2035-2. Publisher IEEE

Proceedings of *International Conference on Nanoscience, Technology and Societal Implications, NSTSI11*, 8-10 December 2011.

- [3] **P. Dwivedi**, S. S. Narvi and R. P. Tewari; Mythology Merges with Technology for Majestic Production of Silver Nanoparticles: Rudraksha Enabled; *Advanced Materials Research*, Vol. 585, 2012, 144-148, ISSN-1662-8985. Trans Tech Publications, Switzerland

Proceedings of *International Conference on Advances in Materials and Processing Challenges and Opportunities (AMPCO 2012)*, 2-4 Nov 2012.

## 2. Conference presentations:

- [1] **P. Dwivedi**, S. S. Narvi, R. P. Tewari, Keshav Shukla, P. C. Pandey and Avinash. C. Pandey; Green Synthesis of a Silver Bionanocomposite and its Application in Biomedical Engineering: A Perspective towards Combating Implant Related Infection; '3<sup>rd</sup> National Conference on Nanomaterials and Nanotechnology' held during 21-23 December, 2010 at Amity University, Lucknow, INDIA. [Poster presentation]
- [2] **P. Dwivedi**, S. S. Narvi and R. P. Tewari; A New Strategy to Battle with Implant Related Infection: Preparation and Application of Silver - Chitosan Bionanocomposite Employing a Green Route; 'Interface of Industry, Biology and Chemistry Research in 21<sup>st</sup> Century' held during 5-7 February, 2011 at University of Allahabad, Allahabad, INDIA. [Oral presentation]
- [3] **P. Dwivedi**, S. S. Narvi and R. P. Tewari; Biomedical Application of a Novel Nanocomposite Material: Envisaging the Present and Future Trends to Combat Implant Related Infection; 'National Conference on Nanomaterials & Applications: Present Position and Road Ahead' held during 16-18 March, 2011 at Banaras Hindu University, Varanasi, INDIA. [Oral presentation]
- [4] **P. Dwivedi**, S. S. Narvi and R. P. Tewari; Natural Route to a Novel Nanocomposite Biomaterial: An Embodiment for the Abatement of Implant Associated Infection; 'International Conference on Nano Science, Technology & Societal Implications (NSTSI11)' held during 8-10 December, 2011 at Bhubaneswar, Orissa, INDIA. [Oral presentation]
- [5] **P. Dwivedi**, S. S. Narvi and R. P. Tewari; Natural Route to a Nanocomposite Material in the Nanomedicine landscape: a Perspective towards Combating Implant Associated Infection; 'Healthcare India 2012- International Congress on Advances in Human Healthcare Systems' held during 20-23 February, 2012 at New Delhi, INDIA. [Poster presentation]
- [6] **P. Dwivedi**, S. S. Narvi and R. P. Tewari; Mythology Merges with Technology for Majestic Production of Silver Nanoparticles: Rudraksha Enabled; 'International Conference on Advances in Materials and Processing Challenges and Opportunities (AMPCO 2012)' held during 2-4 November, 2012 at Indian Institute of Technology Roorkee, Roorkee, INDIA. [Poster presentation]
- [7] **P. Dwivedi** and P. C. Pandey; Nanocatalytic Influence on Polymeric Waste Pyrolysis for Energy Recovery and towards Sustainable Environment; '3<sup>rd</sup> International Nanotechnology Conference & Expo' held during 7-9 May, 2018 at Rome, ITALY. [Invited Speaker]

- [8] **P. Dwivedi**, P. C. Pandey, P. K. Mishra and N. Srivastava; Nanocatalytic technology for efficient pyrolysis of disposed super absorbent polymeric wastes towards energy recovery; 'The 3rd National Conference on Materials for Energy Conversion and Storage' held during 18- 20 October, 2018 at Indian Institute of Technology (B.H.U.), Varanasi, INDIA. [Poster Presentation] **[Best Poster Award]**
- [9] **P. Dwivedi**, P. C. Pandey and P. K. Mishra; Energy generation from polymeric waste pyrolysis through nanocatalytic route: A viable environmental waste management technique; 'APA-2018 International conference on Advances in Polymer Science & Technology' held during 1-3 November, 2018 at Kathmandu, NEPAL. [Oral Presentation]

### **3. Workshop & Short term course attended:**

- [1] Participation in All India Council of Technical Education (AICTE) sponsored two weeks long online short term course (STC) on "Method of Analysis of Smart Structures — Nonlocal Mechanics (MASSNM)" held during 01.02.2021 to 13.02.2021 and organized by Department of Mechanical Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi — 221005, Uttar Pradesh, India
- [2] Participation in One Day National Webinar on 'NAAC Related Quality Enhancement Strategies for HEIs and Preparation of NAAC Documents' organized by IQAC, Belda College, Paschim Medinipur, West Bengal, India on 11<sup>th</sup> February 2021
- [3] Participation in One Week Virtual International Faculty Development Programme on Innovation, IPR, Technology Development and Entrepreneurship, June 14 - June 19, 2021 organized by St. Claret College, Bengaluru, Karnataka, INDIA & KSCST IP Cell , Institution's Innovation Council (SCC-IIC) and Internal Quality Assurance Cell (IQAC)
- [4] Participation in the Online Faculty Development Workshop on "How to Use ICT in Teaching, Learning & Administrative Practices in Higher Education Institutions" held during June 18th to 20<sup>th</sup> June, 2021, organized by IQAC, Surendranath College, Kolkata, West Bengal, India
- [5] Participation in One Day Online Workshop on 'Use of Google Workshop in Online Teaching' organized by IQAC, Belda College, Paschim Medinipur, West Bengal, India on 3<sup>rd</sup> September 2021
- [6] Participation in Five days Online Faculty Development Program on "Mentoring for Institutional Social Responsibility and Facilitation for Community Engagement" from 1<sup>st</sup> March to 5<sup>th</sup> March 2022, organized by the Faculty Development Centre, Mahatma Gandhi National Council of Rural Education, Department of Higher Education, Ministry of Education, Government of India, Hyderabad; sponsored by Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching
- [7] Participation in One Day National Seminar on 'Yoga in Philosophy and Practice' organized by the Department of Philosophy in association with Physical Fitness Club and NSS Unit, Belda College, Paschim Medinipur, West Bengal, India on 21<sup>st</sup> June 2022, sponsored by Indian Council of Philosophical Research

### **4. Faculty induction program (FIP) & Refresher course (RC):**

- [1] UGC Sponsored 'Faculty Induction Programme' of UGC-HRDC Himachal Pradesh University, Shimla, from 4<sup>th</sup> May 2022 to 2<sup>nd</sup> June 2022.
- [2] UGC Sponsored 'Refresher Course' of UGC-HRDC University of Allahabad, Prayagraj, from 27<sup>th</sup> March 2023 to 9<sup>th</sup> April 2023.

**Invited Lectures**

Invited Talk at 'International Online Conference on Reuse, Recycling, Upcycling, Sustainable Waste Management and Circular Economy (ICRSC –2022), Mahatma Gandhi University, Kottayam, Kerala, India, 09th to 11thSeptember 2022'