


Title	<b>Dr.</b>	First Name	<b>GEETA</b>	Last Name	<b>SAINI</b>	Photograph
Designation	Associate Professor					
Address	Department of Chemistry Gargi College, Siri Fort Road University of Delhi. 110049					
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<b>Educational Qualifications</b>						
Degree	Institution				Year, division, (%PC)	
Ph.D.	Indian Institute of Technology, New Delhi, India				2010	
MSc.	Maharshi Dayanand University, Rohtak, India				2003, Ist, (74.8%)	
<b>Career Profile</b>						
19 <sup>th</sup> Oct 2015 – till date: Assistant Professor, Department of Chemistry, Gargi College (Permanent)						
20 <sup>th</sup> Jan 2011 – 15 <sup>th</sup> Oct 2015: Assistant Professor, Department of Chemistry, Gargi College (Adhoc)						
1 <sup>st</sup> Feb 2010 – 31 <sup>st</sup> Dec 2010, Project Scientist, Indian Institute of Technology, Delhi						
<b>Administrative Assignments</b>						
<ul style="list-style-type: none"> <li>• Convener, Chemical Society, Department of Chemistry, 2015-2017, 2021-22</li> <li>• Member of NSS, Training and placement cell, Gargi College, 2016-17</li> <li>• Deputy Superintendent of university examination 2018</li> <li>• Worked in annual day committee and compiled Annual report Gargi College, 2018-2022.</li> <li>• Worked in Departmental committee for Time table, Admission, Deputy Superintendent for Practical Examination and many other</li> </ul>						
<b>Areas of Interest / Specialization</b>						
<ul style="list-style-type: none"> <li>• Waste Management</li> <li>• Synthesis of organic conjugated materials for electronic applications</li> <li>• Development of bio-degradable plastic for a sustainable environment</li> <li>• Biodegradable polymers as an alternative to conventional polymers</li> </ul>						
<b>Subjects Taught (Theory &amp; Practical)</b>						
Basic Organic chemistry and reaction mechanism						
Stereochemistry						
Chemistry of Functional Group						
Chemistry of Bio-molecules						
Environmental Chemistry						

## Research Guidance

### Supervision of MSc. Dissertation

- Starch-PVA Blend: synthesis, properties and biodegradability, Pooja Narula, (Jan-May 2016) Enrolment No. A4450914087, Amity institute of Applied Science, Noida, UP

### Supervision of BSc. Projects (Gargi College Pathfinder Award, Under DBT Star College Scheme)

- “*Beyond Conventional: Managing Floral Waste as a Social Welfare Project* (2021-22) Shraddha R Bhat and Swati Sharma Chemistry (H). (Winner)
- Smart Fabric: Development of nano silver-coated cotton fabric. (2017-18) Kajal, Prerna Yadav, Manisha Dagar .
- Synthesis and characterization of Starch:PVA:NanoAg based completely biodegradable polymeric blends-An alternative to conventional polymers (2016-17), Witty Tyagi and Gunjan (Microbiology (H) 3<sup>rd</sup> Year). (Winner)
- Small Scale Water Treatment Plant: Waste Water from Gargi College Canteen and Laboratories (2014-15) Shweta Kalra, Urminder Kaur (Chemistry (H) 2<sup>nd</sup> Year)
- Wealth from Waste: A Green Method to Produce Biodiesel from Waste Cooking Oil and Generation of Useful Products from Waste Further Generated “*A SOCIAL AWARENESS PROJECT*” (2013-14) Dimple Garg, Nidhi Garg and Malvokia (Chemistry (H) 2<sup>nd</sup> Year). (Winner)

### Publications Details

#### Book

- *Science and Life*, (Co-author Dr. Richa Achrya) Publisher R. Chand & Co. Delhi. ISBN 81-8045-095-3

#### Book Chapter

- Ayurveda: The Ancient Indian Science (chapter 8 in book entitled “ Indian and Western knowledge traditions) Page 56-64. ISBN 978-93-85144-82-0 Shivalik Prakashan, Delhi.
- “Biological Synthesis of Silver nanoparticle” accepted for publication with the edited book “Biological Methods of Nanomaterial Synthesis and their applications. Published by SCIENG publications. ISBN: 978-93-94766-01-3. Year 2022

#### Research Paper in referred/peer-reviewed journal

- “Tetrathiophenes with thiophene side chains: Effect of substitution on packing and conjugation.” G. Saini, N. T. Lucas, J. Jacob, Tetrahedron Letters, 2010, 51, 2956-2958. ISSN: 0040-4039 Impact Factor: 2.376

- “Synthesis and characterization of hexathiophenes with methylthienyl side chains.” Geeta Saini and Josemon Jacob, *Macromolecular Symposia*, 2010, 298, 154-159. Print ISSN:1022-1360 Online ISSN: 1521-3900 Impact Factor: 0.913
- “Synthesis and characterization of 3,4-diaryl substituted polythiophene derivatives.” Geeta Saini and Josemon Jacob. *Polymer International*, 2011, 60, 1010-1015. Online ISSN:1097-0126 Impact Factor: 2.125
- “Synthesis, characterization and OFET characteristics of 3,4-diaryl substituted poly(thienylene vinylene) derivatives.” Geeta Saini, Josemon Jacob, Satyaprasad P S and K S Narayan. *Polymer Bulletin*, 2011, 67, 753-761. Print ISSN:0170-0839 Online ISSN:1436-2449 Impact Factor: 1.332
- "Interplay of alpha, alpha versus alpha, beta-conjugation into the Excited States and Charged Defects of Branched Oligothiophenes as Models for Dendrimeric Materials" Rafael C. González-Cano\*, G. Saini, J. Jacob, J. T. López Navarrete, J. Casado M. Carmen Ruiz Delgado *Chemistry A European Journal* Volume 19, Issue 50, 2013, Pages: 17165–17171. Online ISSN:1521-3765 Impact Factor: 5.831.
- “Effect of Spacers on 3, 4-Disubstituted Polythiophene Derivatives” Geeta Saini, *The International journal of Engineering and Science*, 2014, Volume 3, Issue 3, Pages 38-42 ISSN(e): 2319 – 1813 ISSN(p): 2319 – 1805.
- “Wealth from Waste: A Green Method to Produce Biodiesel from Waste Cooking Oil and Generation of Useful Products from Waste Further Generated “A Social Awareness Initiative” Indu Tucker Sidhwani, Geeta Saini, Sushmita Chowdhury, Dimple Garg, Malovika, Nidhi Garg *Volume 1, Issue 1, page 131-151, 2015. ISSN 2395 – 2334*
- “Synthesis, characterization and photovoltaics studies of 3-alkylthienyl thiophene based polymers prepared via direct arylation polymerization.” Geeta Saini, Vishal Sharma, Vandana Luthra and R.P. Tandon. *Advanced Materials Letters* DOI: 10.5185/amlett.2017.1483. vol. 8, issue 7, pg 813-818, 2017.
- “Synthesis and Biodegradation Study of Starch/PVA/Nanoclay Blend” Geeta Saini, Himani Chauhan, Aeshna Gupta, Disha Gangotia. *J. Mat. NanoSci.* 2018, 5(1), 29-34.
- “Preparation of NanoSilver coated Cotton Fabric and its bactericidal evaluation”. Geeta Saini, Kajal and M. Divya Ganeswari. *J. Mat. NanoSci.* 2019, 6(1), 7-11
- The purification of wastewater on a small scale by using plants. Geeta Saini, Shweta Kalra, Urminder Kaur. *Applied water Sciences*, (2021) 11:68 <https://doi.org/10.1007/s13201-021-01406-4>
- A Review of Various Treatment Methods for the Removal of Dyes from Textile Effluent Geeta Saini and Chingrison Kathing. *Recent Progress in Materials* 2022, volume 4, issue 4 doi:10.21926/rpm.2204028
- "A Colorful Solution to Floral Waste: An Approach for Sustainable Environment and its Relation to a Small Business Model" Geeta Saini, Swati Sharma and Shraddha R Bhat. *International Journal of Innovation and Sustainable Development* 2023, Accepted for publication.

**Add on Course (In the last five years)**

One of the convenors of a one-year add on course on “**Yoga and Ayurveda**” 2018-19. Jointly organised in collaboration with JIVA Ayurveda, Faridabad, Haryana. It’s a one-year certificate course and 70 students were enrolled.

**Conference Organization/ Presentations (In the last five years)**

1. Acted as one of the organizers in 2 day workshop on “Chemistry in day-to-day life” organized by the Department of Chemistry, Gargi College on 17-18 July, 2018.
2. Acted as one of the organizers in 3 day interdisciplinary seminar on “Exploring New Dimensions of Knowledge, organized by the Department of Chemistry, Gargi College on 17-19 July, 2017.
3. Presented paper entitled “Nano Silver Coated Anti Microbial Cotton Fabric” in the international conference on “Environmental and Ecological Sustainability: Engaging the Stakeholders” organized by the School of Interdisciplinary and Trans-disciplinary Studies Indira Gandhi National Open University, New Delhi on 4-5 October 2018.
4. Participated in Faculty Development program cum workshop on “Greening an Undergraduate Chemistry Lab: Creating awareness for Environmental friendly Methodologies” Organised by Sri Venkateswara College, University of Delhi
5. Acted as one of the coordinators in a two day national conference on “Combating Industrial Pollution for Sustainable Environment-A fusion of Scientific and industrial efforts” organized by the Department of Chemistry, Gargi College on Sept 22-23, 2016.
6. Participated in Short term training program on Recent “Development in Nano and Micro manufacturing” organized by School of Engineering and Technology” IGNOU, Delhi on 15-19<sup>th</sup> April 2013.
7. Participated in National workshop on Electron Microscopy and allied techniques organized by electron microscope society of India, North chapter and university of Delhi during Dec 21-23, 2015, held at department of physics and astrophysics, university of Delhi, Delhi.
8. Delivered an oral presentation in the International Conference on Materials Science & Technology, 01st – 04th March, 2016, at the Conference Centre, University of Delhi, India.
9. Attended and was resource person for inter college workshop on Green Chemistry held at Gargi college, on 13 Aug, 2016.
10. Attended Indo-UK Scoping workshop on “Development of Rural Bio-refineries in India: from waste to wealth” on 20 Feb, 2017.
11. Acted as a resource person for “Preparation of Organic Reagents” in a two day intercollege workshop for Chemistry Laboratory staff on 14-15 July 2016.

**Research Projects (Major Grants/Research Collaboration)**

- DST- Fast Track Project For Young Scientist (CS-143/2013) (2014-2017)

Title: **“Synthesis and characterization of organic conjugated ambipolar molecules for electronic applications”**

Total Fund: 8.80 lakh

Status: Completed

#### **Awards and Distinctions**

- CSIR Junior Research Fellowship (From Nov 04 to Nov 06)
- Senior Research Fellowship (From Nov 06 to Nov 09)

#### **Association With Professional Bodies**

- Life Member of the Indian Society of Technical Education
- Life Member of the Association of Chemistry Teachers (ACT)

#### **Other Activities**

Contributed to the e-PG Pathshala project by UGC under the NMEICT mission of MHRD, Govt. of India, as co-Author in Chemistry subject. (**content writer of 10 modules of Environmental Chemistry paper**)

*Geeta Saini*

Dr. Geeta Saini

New Delhi