

<b>NAME</b>	Dr Surbhi Sinha	
<b>DESIGNATION</b>	Assistant Professor-I	
<b>EMAIL ID</b>	ssinha2@amity.edu	
<b>CONTACT NUMBER</b>	9015661221	
<b>RESEARCH INTERESTS</b>	Algal bioremediation, Algal biodiesel production, wastewater treatment, Dyes and heavy metal toxicity, Nano bioremediation	

**EDUCATIONAL QUALIFICATIONS:**

Name of College / University	Degree	Year
St. Columba's college, VBU University	B.Sc (Biotechnology)	2006
PES College, Bangalore University	M.Sc (Biotechnology)	2008
Amity University Uttar Pradesh	Ph.D	2016

**Title of Ph.D. thesis:**

**EXPERIENCE (in chronological order): Total 20 Years Research & Teaching**

Designation	Type of post held (teaching/ research)	Name of the Institute	Year (From – To)
Research Associate	Teaching/Research	Amity Institute of Biotechnology, Amity University Uttar Pradesh	2017-2022
Assistant Professor-I	Teaching/Research	Amity Institute of Biotechnology, Amity University Uttar Pradesh	2022 May-Present

**No. of Ph.D. students supervised** Nil

**No. of Post-Doc** Nil

**No. of M.Tech. Students supervised:** 02

**No. of B.Tech. Students supervised:** 04

**PUBLICATIONS (19)**

- Solanki, S., **Sinha, S.** & Singh, R. Myco-degradation of microplastics: an account of identified pathways and analytical methods for their determination. Biodegradation (2022). **(Impact Factor- 3.976)**
- Solanki, S., **Sinha, S.**, Bisaria, K., Singh, R., & Saxena, R. (2022). Accurate data prediction by fuzzy

inference model for adsorption of hazardous azo dyes by novel algal doped magnetic chitosan bionanocomposite. *Environmental Research*, 113844. **(Impact factor: 8.431)**

3. **Sinha, S.**, Mehrotra, T., Kumar, N., Solanki, S., Bisaria, K., & Singh, R. (2022). A sustainable remediation of Congo red dye using magnetic carbon nanodots and *B. pseudomycooides* MH229766 composite: mechanistic insight and column modelling studies. *Environmental Science and Pollution Research*, 1-21. **(Impact factor: 5.053)**

4. Bisaria, K., **Sinha, S.**, Iqbal, H. M., & Singh, R. (2022). Ultrasonication expedited As (III) adsorption onto chitosan impregnated Ni-Fe layered double hydroxide biosorbent: Optimization studies and artificial intelligence modelling. *Environmental Research*, 113184. **(Impact factor: 8.431)**

5. Nigam, S., Singh, R., Bhardwaj, S.K., Sami, R., Nikolova, M.P., Chavali, M., **Sinha S.** (2021). Perspective on the Therapeutic Applications of Algal Polysaccharides. *Journal of Polymers and the Environment*, 20, 1-25. **(Impact factor: 4.705)**

6. Bisaria, K., **Sinha, S.**, Singh, R., & Iqbal, H. M. (2021). Recent advances in structural modifications of photocatalysts for organic pollutants degradation—A comprehensive review. *Chemosphere*, 24,131263. **(Impact factor: 8.943)**

7. Yugandhar, P., Murthy, C., Rokayya, S., Ebtihal, K., Abeer, E., Ahmad, A., M, Singh., **Sinha, S.**, G, El-Chaghaby. (2021). Evaluation of some Active Nutrients, Biological Compounds, and Health Benefits of Reishi Mushroom. *International Journal of Pharmacology*, 17(4), 243-250. **(Impact Factor: 0.751)**

8. Bisht, D., **Sinha, S.**, Nigam, S., Bisaria, K., Mehrotra, T., & Singh, R. (2021). Adsorptive decontamination of

paper mill effluent by nano fly ash: response surface methodology, adsorption isotherm and reusability studies. *Water Science and Technology*, 83(7), 1662-1676. **(Impact Factor: 2.43)**

9. Parepalli, Y., Chavali, M., Sami, R., Singh, M., **Sinha, S.**, & Touahra, F. (2020). Ganoderma Lucidum: Extraction and characterization of polysaccharides, yields and their bioapplications. *Alger. J. Res. Technol*, 5(1), 30-43.

10. Kumar, N., **Sinha, S.**, Mehrotra, T., Singh, R., Tandon, S., & Thakur, I. S. (2019). Biodecolorization of azo dye acid black 24 by *Bacillus pseudomycoides*: process optimization using box Behnken design model and toxicity assessment. *Bioresource Technology Reports*, 8, 100311. **(Impact Factor: 1.13)**

11. **Sinha, S.**, Nigam, S., & Singh, R. (2018). Biosorption Capacity of Cr (VI) on Live and Dead *Scenedesmus rubescens*: Kinetic, Equilibrium and Phytotoxicity Study. *Indian Journal of Agricultural Biochemistry*, 31(2), 137-144. **(Impact Factor: 0.30)**

12. Behl, K., **Sinha, S.**, Sharma, M., Singh, R., Joshi, M., Bhatnagar, A., & Nigam, S. (2019). One-time cultivation of *Chlorella pyrenoidosa* in aqueous dye solution supplemented with biochar for microalgal growth, dye decolourization and lipid production. *Chemical Engineering Journal*, 364, 552-561. **(Impact Factor: 16.744)**

13. Verma, J., Nigam, S., **Sinha, S.**, & Bhattacharya, A. (2018). Comparative studies on poly-acrylic based anti-algal coating formulation with SiO<sub>2</sub>@ TiO<sub>2</sub> core-shell nanoparticles. *Asian Journal of Chemistry*, 30(5), 1120-1124. **(Impact Factor: 0.54)**

14. Verma, J., Nigam, S., **Sinha, S.**, & Bhattacharya, A. (2018). Development of polyurethane-based anti-scratch and anti-algal coating formulation with silica-titania core-

	<p>shell nanoparticles. <i>Vacuum</i>, 153, 24-34. <b>(Impact Factor: 4.11)</b></p> <p>15. Verma, J., Nigam, S., <b>Sinha, S.</b>, Sikarwar, B. S., &amp; Bhattacharya, A. (2017). Irradiation effect of low-energy ion on polyurethane nanocoating containing metal oxide nanoparticles. <i>Radiation Effects and Defects in Solids</i>, 172(11-12), 964-974. <b>(Impact Factor:1.141)</b></p> <p>16. Nigam, S., <b>Sinha, S.</b>, Manglik, M., &amp; Singh, R. (2016). Treatment of textile dye effluent by algae: an eco-friendly and sustainable approach to environmental pollution. <i>Int J Pharma Bio Sci</i>, 7, 366-375. <b>(Impact Factor: 0.14)</b></p> <p>17. <b>Sinha, S.</b>, Singh, R., Chaurasia, A. K., &amp; Nigam, S. (2016). Self-sustainable <i>Chlorella pyrenoidosa</i> strain NCIM 2738 based photobioreactor for removal of Direct Red-31 dye along with other industrial pollutants to improve the water quality. <i>Journal of hazardous materials</i>, 306, 386-394. <b>(Impact Factor: 14.224)</b></p> <p>18. <b>Sinha, S.</b>, Nigam, S., &amp; Singh, R. (2015). Potential of <i>Nostoc muscorum</i> for the decolourisation of textiles dye RGB-Red. <i>Int J Pharm Bio Sci</i>, 6, 1092-1100. <b>(Impact Factor: 0.123)</b></p> <p>19. Singh, R., &amp; <b>Sinha, S.</b> (2013). Bioremediation of heavy metals by algae: A review on the evaluation of low cost and high-performance biosorbents. <i>Indian Journal of Agricultural Biochemistry</i>, 26(1), 1-9. <b>(Impact Factor: 0.30)</b></p>
<p><b>PATENTS FILED (10)</b></p>	<p>1. <b>Surbhi Sinha</b>, Rachana Singh, Kavya Bisaria, Swati Solanki, Sonal Nigam (2022) A method for decontamination of arsenic using low-cost magnetic furfuraldehyde cross-linked cellulose bio composite. (Appplcation No - CAN488).</p> <p>2. Naveen Kumar, <b>Surbhi Sinha</b>, Tithi Mehrotra, Aishwarya Mishra, Rachana Singh (2018) A composite</p>

comprising of encapsulated *Bacillus pseudomycoides* and iron oxide nanoparticles for the removal of toxic diazo dye Congo Red. (Application No- 201811026968).

3. **Surbhi Sinha**, Tithi Mehrotra, Rachana Singh (2018) Green synthesis of carbon nanodots using the banana peel for the decolourization of azo dye Acid Black 24 from textile effluents. (CRN NO-2778)

4. Rachana Singh, Tithi Mehrotra, Abhinav Srivastava, **Surbhi Sinha** (2017) Potential of novel bacterial species *Citrobacter freundii* LCJ4 – 002 for the decolourization of textile dye Swiss Pink. (Application No- 201711013703)

5. Subhasha Nigam, Monika Joshi, **Surbhi Sinha**, Kannikka Behl (2016) Synthesis of Graphene Oxide (GO) using *Chlorella pyrenoidosa* (Algae) (Application No- 201611014935).

6. **Surbhi Sinha**, Bhawna Rana, Subhasha Nigam (2016) Composition of *Chlorella pyrenoidosa* extract and antibiotics against the gram-positive and gram-negative bacteria.

7. **Surbhi Sinha**, Dhritiman Chakraborty, Ingle Aviraj, Kannikka Behl, Bhawna Rana, Monika Joshi, Subhasha Nigam (2015) Reduction of textile dye DR-31 (Direct Red 31) using Algae-GO (Graphene oxide) nanocomposite. (3994/DEL/2015).

8. Subhasha Nigam, Bhawna Rana, **Surbhi Sinha** (2014) A composition and method for enhancing the growth of algal biomass using yellow mustard seeds. (3973/DEL/2014).

9. Subhasha Nigam, Rachana Singh, **Surbhi Sinha**, Savera Aggarwal, Shifu Aggarwal (2013) Effect of charcoal on the decolourization efficiency of RGB-Red dye by *Chlorella pyrenoidosa*. (3442/DEL/2013).

10. Subhasha Nigam, Rajashree Das, Valentina Gehlot and **Surbhi Sinha** (2013) Antibacterial property of Green Seaweed *Chaetomorpha* species against *Helicobacter*

	<i>pyroli.</i> (3711/DEL/2013).
<b>RESEARCH PROJECTS</b> Completed: ( <i>total no.</i> ) Ongoing: ( <i>total no.</i> )	1. A synergistic and economical approach for treatment of pulp & paper mill effluent system using microbes and fly ash nanoparticle to achieve minimum/zero waste discharge funded by the ministry of commerce and industries  2. Application of algal polysaccharide magnetic nanocomposites for the removal of arsenic and genotoxic assessment of degraded metabolites under the scheme for young scientists and technologists, DST
<b>AWARDS &amp; HONOURS/ DISTINCTIONS</b>	1. Awarded as Junior Scientist of the year -2018 by National Environmental Science Academy, India. 2. Best Poster presentation award in Indo Portuguese workshop on emerging trends of Nanotechnology in Chemistry and Biology (2016) organized by Department of Chemistry, Hansraj College, Delhi University and Department of Chemistry, Deshbandhu College, Delhi University in association with Centro de Química da Madeira University da Madeira, PORTUGAL 3. Best poster presentation award in 4 <sup>th</sup> International Conference on Ecotoxicology and Environmental Sciences (2014) organized by the Institute of Ecotoxicology and Environmental Sciences held at the Programme Centre, New Delhi YMCA.
<b>MEMBERSHIP</b> with Professional/ Academic bodies	Member of National Environmental Science Academy