

# Curriculum Vitae

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**Dr. Santosh Bhukal**

**Assistant Professor**

**Institution:** Guru Jambheshwar University of Science and Technology  
(GJUS&T), Hisar (Since 2018)

**Correspondence Address:**

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**Contact Number:** 01662263360

**Date of Birth:** 25-07-1985

**Gender:** Female

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## **Academic Qualifications:**

**Ph.D.:** *Synthesis of Soft and Hard Ferrites from Industrial Wastewater and Their Characterization*

- **Institution:** Panjab University, Chandigarh

**M.Sc. in Environment Science/Solid Waste Management (2008)**

- **Institution:** Panjab University, Chandigarh

**B.Sc. in Medical (2006)**

- **Institution:** Panjab University, Chandigarh

**12th Grade (2003)**

- **Board:** Haryana Board of School Education

**10th Grade (2001)**

- **Board:** Haryana Board of School Education

## **NET Qualification:**

Qualified the National Eligibility Test (NET) in June 2008 (Environment Science).

## **Post-Doctoral Fellowships:**

- **UGC Post-Doctoral Fellowship for Women**
- **UGC Post-Doctoral Fellowship for SC/ST**

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## **Current Research Interests:**

- Nanoparticle synthesis and their applications in various fields.

**Ph.D. Supervised: 01**

- "Assessment of Impact of Crop Residue Burning on Air Quality in Haryana"

**Professional Recognition/ Award/ Prize/ Certificate, Fellowship received**

S.No	Position Held	Name of Award	Awarding Agency	Year
1.	<b>Young Scientist Award</b>	<b>(Best Poster)</b>	Chaudhary Devi Lal University, Sirsa	28th to 30th January 2012
2.	<b>Best Poster</b>	<b>(Certificate of merit)</b>	Panjab university Chandigarh	23 <sup>rd</sup> -24 <sup>th</sup> Feb.2013
3.	<b>Junior Scientist of The Year</b>	<b>Junior Scientist of The Year</b>	National Environment Science Academy	Promoting Environmental Technologies for Waste Management and Sustainable Development (WMSD-2021) 12-13 December 2021
4.	<b>NESA Scientist of the Year Award of the Year 2022.</b>	<b>Best Scientists</b>	National Environment Science Academy	Agriculture Science and Technology: Challenges and Prospects (AST-2022) International Conference on 6-8 May 2022

- **Research Projects: -**

S.No.	Title of the project	Name of the funding agency	Duration
1.	<b>Magnetic nanostructures/nano-composites platform for the environmental applications (Minor Project)</b>	<b>GJUS&amp;T, Hisar</b>	<b>Six Months</b>
2.	<b>Room Temperature Ionic Liquid (RTIL)/RTIL Modified Nanostructures Based Extraction of water contaminants: A green approach (UGC Start-Up)</b>	<b>UGC, New Delhi</b>	<b>2 Years</b>

- **Publications** (*List of papers published in SCI Journals, in year wise descending order*).

S.N.	Authors	Name of Journal	Title.	Volume	Year	Pages	Status (national / international)	Impact factor
1.	Divya Yadav, Karmjeet Nain, Divya Dhillayan, Rishi Mittal Shafila Bansal, <b>Santosh Bhukal*</b>	Environmental Science: Advances	Hydrophobic ionic liquid (IL)-based magnetic adsorbents: way forward to remediate water pollution	DOI: 10.1039/D3VA00269A	2024		International	-
2.	Karmjeet Nain, Divya Dhillayan, Shafila Bansal, Qudrat Hundal, Priya Saharan, <b>Santosh Bhukal*</b>	Environmental Science and Pollution Research	Adsorption potential of ionic liquid-modified ZnO nanoparticles for highly efficient removal of azo dye: detailed isotherms and kinetic	<a href="https://doi.org/10.1007/s11356-023-28175-8">https://doi.org/10.1007/s11356-023-28175-8</a>	2023	-	International	5.8
3.	Sahil Mor · Khairwal Ravindra · <b>Santosh Bhukal</b> · Veenu Mor · Narsi Ram Bishnoi	Water Air Soil Pollution	Evaluation of Public Perception About Sustainable Crop Residue Management Practices and Health Effects in Haryana” India		2023	234:184	International	2.9

4.	Rishi Mittal, Anuj Sharma, Abhishek Kumar Bhardwaj, Rachna Bhateria, Sahafila Bansal, Rajiv Kashyap, <b>Santosh Bhukal</b>	Inorganic Chemistry Communications	Removal of chromium (VI) using <i>spirulina</i> assisted synthesized mesoporous iron oxide nanoparticles	154	<b>2023</b>	11 08 81	International	3.8
5.	<b>Santosh Bhukal</b> , Anuj Sharma, Rishi, Divya, Sumit Kumar, Bansal Deepak, Kaushik Pal, Sharma Mona	Topics in Catalysis	Spirulina Based Iron Oxide Nanoparticles for Adsorptive Removal of Crystal Violet Dye		2022		International	<b>2.9</b>
6.	S Mor, <b>Santosh Bhukal</b> , Narsi Ram Bishnoi,	Annals Of Biology	Crop Residue Burning: Impacts, Management Techniques and Policies	-	<b>2022</b>	-	-	-
7.	Sahil Mor, <b>Santosh Bhukal</b> , Narsi Ram Bishnoi & Khaiwal Ravindra	Water, Air, & Soil Pollution	Diurnal Variations in the Air Pollutants Concentration over Haryana, India, and Understanding their Emission Sources	233	<b>2022</b>	23 3- 27 7	International	2.98
8.	S Mor, T Singh, NR Bishnoi, <b>S Bhukal</b> , K Ravindra	Environmental Science and Pollution Research, 1-14	Understanding seasonal variation in ambient air quality and its relationship with crop	29	<b>2022</b>	41 45 - 41 58	International	5.8

			residue burning activities in an agrarian state of India					
9.	Ankush Sheoran, Manisha Dhiman, <b>Santosh Bhukal</b> , Rupal Malik, Jyoti Agarwal, Bhupendra Chudasma, Sonal Singhal	Materials Chemistry and Physics	Development of magnetically retrievable spinel nanoferrites as efficient catalysts for aminolysis of epoxides with amines	222	2019	207-216	International	4.6
10.	Japinder Kaur, Santosh Bhukal, Kanu Gupta, Mukesh Tripathy, Sandeep Bansal, Sonal Singhal,	Materials Chemistry and Physics	Nanocomposite of CeO <sub>2</sub> and ZnO: An active material for the treatment of contaminated water	177	2016	512-520		4.6
11.	<b>Santosh Bhukal</b> , Manisha Dhiman, S. Bansal, Mukesh K. Tripathi and Sonal Singhal	RSC Advances	Substituted Co-Cu-Zn nanoferrites: Synthesis, fundamental and redox catalytic properties for the degradation of methyl orange	6	2016	1360-1375	International	3.9
12.	<b>Santosh Bhukal</b> , Rimi Sharma, S.	Superlattices and	Mg-Co-Zn magnetic nanoferrites: Characterization	77		134-	International	3.22

	Mor and SonalSinghal	Microstructure	on and their use for remediation of textile wastewater		2015	151		
13.	<b>S. Bhukal</b> , Shivali and S. Singhal	Materials Science in Semiconductor Processing	Magnetically separable copper substituted cobalt–zinc nano-ferrite photocatalyst with enhanced photocatalytic activity	26	2014	467-476	International	4.42
14.	<b>Santosh Bhukal</b> , S. Bansal and SonalSinghal	Physica B: Condensed Matter	Magnetic Mn substituted cobalt zinc ferrite systems: Structural, electrical and magnetic properties and their role in photocatalytic degradation of methyl orange azo dye	445	2014	48–55	International	2.98
15.	<b>S. Bhukal</b> , S. Bansal and SonalSinghal	Journal of Molecular Structure	$\text{Co}_{0.6}\text{Zn}_{0.4}\text{Cu}_{0.2}\text{Cd}_x\text{Fe}_{1.8-x}\text{O}_4$ ( $0.2 \leq x \leq 0.8$ ) magnetic ferrite nanoparticle: Synthesis, characterization and photo-	1059	2014	150–158	International	3.84

			catalytic degradation of methyl orange					
16.	<b>S. Bhukal</b> , S. Mor, J. Singh, S. Bansal and S. Singhal	Journal of Molecular Structure	Influence of Cd <sup>2+</sup> ions on the structural, electrical, optical and magnetic properties of Co–Zn nanoferrites prepared by sol gel auto combustion method	1071	2014	95 – 102	International	3.84
17.	<b>S. Bhukal</b> , T. Namgyal, S. Mor, SonalSinghal and S. Bansal	Journal of Molecular Structure	Structural, electrical, optical and magnetic properties of chromium substituted Co–Zn nanoferrites Co <sub>0.6</sub> Zn <sub>0.4</sub> Cr <sub>x</sub> Fe <sub>2-x</sub> O <sub>4</sub> (0 ≤ x ≤ 1.0) prepared via sol–gel auto-combustion method	1012	2012	162-167	International	3.84
18.	SonalSinghal, Rimi Sharma, TseringNamgyal, SheenuJauhar, <b>Santosh Bhukal</b> and Japinder Kaur	Ceramics International	Structural, electrical and magnetic properties of Co <sub>0.5</sub> Zn <sub>0.5</sub> Al <sub>x</sub> Fe <sub>2-x</sub> O <sub>4</sub> (x = 0, 0.2, 0.4, 0.6,	38	2012	2773 – 2778	International	5.2

			0.8 and 1.0) prepared via sol-gel route					
19.	SonalSinghal, S. <b>Bhukal</b> , Jagdish Singh, Kailash Chandra and S. Bansal	Journal of Nanotechnology	Optical, X-Ray Diffraction, and Magnetic Properties of the Cobalt-Substituted Nickel Chromium Ferrites ( $\text{Ni}_{1-x}\text{Co}_x\text{CrFeO}_4$ , $x = 0, 0.2, 0.4, 0.6, 0.8, 1.0$ ) Synthesized Using Sol-Gel Auto-combustion	2011	2011	1-6	National	-
20.	Singhal, Kirandish Kaur, SheenuJauhar and <b>Santosh Bhukal</b>	World Journal of Condensed Matter Physics	Structural and Magnetic Properties of $\text{BaCo}_x\text{Fe}_{12-x}\text{O}_{19}$ ( $x = 0.2, 0.4, 0.6, \&1.0$ ) Nanoferrites Synthesized via Citrate Sol-Gel Method101-104	1	2011	10 1- 10 4	<b>National</b>	2.5



**Books/Reports/Chapters/Conference proceeding etc.**

1.	Title	Authors name	Publisher	Year of Publisher
2.	Unlocking Nature's Potential: Green Synthesized Nanoparticles Paving the Way for Sustainable Agriculture	Divya Yadav, Dr. Santosh Bhukal	Agri roots	2024
3.	Sustainable Approach for Agriculture and Environmental Remediation using Hydroponics and their Perspectives	Rishi Mittal, and Santosh Bhukal	Springer publisher	2024
4.	E-learning: An attribute to Physical, Psychological and Mental Distress Among Students	Santosh Bhukal*,Shafila Bansal,Simranjot Kaur, Ayushi Pathak,Priya Saharan,	Routledge Taylor & Francis Group	2024
5.	Challenges in Conducting Practical Courses during Covid-19	Santosh Bhukal*,Shafila Bansal , Shivangi Jain , Parul	Routledge Taylor & Francis Group	2024
6.	Santosh Bhukal The Role of Metallic Nanoparticles in Maximizing Crop Production	Divya Yadav and Shafila Bansal	International Nova Science Publishers, Inc. Emerging Environmental Applications of Nanozymes	2023
7.	COVID-19 PANDEMIC: A BOON OR BANE TO THE ENVIRONMENT	Shafila Bansal, Priya Saharan, <b>Santosh Bhukal*</b>	Stakeholder Strategies for Reducing	2021

			the Impact of Global Health Crises <b>IGI Global</b>	
8.	Biological Monitoring of Roadside Vegetation Exposed to Vehicular Pollution in District Mahendergarh, Haryana	Mona, S., Rajit, G., Aneet, S., Deepak, B., <b>Bhukal, S.</b> , Gupta, A	Environmental and Ecological Sustainability (eds. B. Rupini, Sushmith Baskar, SadanandaSahoo and Nandini Sinha Kapur)	2018
9.	Recovery of nickel ion from electroplating wastewater and their use in formation of cobalt zinc nanoferrites.	<b>Santosh Bhukal</b> , SumanM or and SonalSinghal	<b>McGraw Hill</b>	<b>2015</b>
10	Structural, Electrical and Magnetic Properties of Ni doped Co-Zn Nanoferrites and their Application in Photo-catalytic Degradation of Methyl Orange Dye	<b>Santosh Bhukal</b> , Sandeep Bansal and SonalSinghal	<b>Trans Tech Publications</b>	<b>2015</b>
11	Study on Electrical and optical properties of cadmium substituted Co-Zn ferrites	Sonal Singhal and <b>Santosh Bhukal</b>	<b>Dorling Kindersley (India)</b>	<b>2013</b>
12	Effect of chromium substitution on the structural, magnetic and electrical properties of nano crystalline $Co_{0.6}Zn_{0.4}Cu_{0.2}Cr_xFe_{1.8-x}O_4$ ferrite.	Sonal Singhal and <b>Santosh Bhukal</b>	<b>Trans Tech Publications</b>	<b>2013</b>
13	Structural, Magnetic, Electrical and Optical Properties of $Co_{0.6}Zn_{0.4}Fe_2O_4$ Prepared via Sol - Gel Auto Combustion Route	<b>Santosh Bhukal</b> , Kirandish Kaur, and SonalSinghal	American Institute of Physics	<b>2011</b>

