AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय
Accredited by NAAC with "A+" Grade

Department of Chemical Engineering

Faculty Profile



Dr. Sushmita Sharma
Assistant Professor (Chemical Engineering)
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https://scholar.google.com/citations?user=6oZfiW4AAAAJ&hl=en
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Research Areas / Areas of Interest

Metal recovery, Reactive extraction, Membrane Separation, Statistical Optimization, Adsorption, Nanotechnology for Wastewater Treatment.

Personal Details

Date of Birth :	21 / 10 / 1992	**Domicile:**	Madhya Pradesh
Gender :	Female	**Blood Group:**	B+
Contact Details:	**Permanent:** LIG 101, Phase 1, Sada Colony, Raghogarh, 473226, Guna (M. P.)		

Academic Background

S. N0.	Qualification	Specialization	University	Class/Grade	Year of Passing
1	Ph.D.	Chemical Engineering	Jaypee University of Engineering & technology, Guna, M.P.	--	2019
2	M.Tech	Chemical Engineering	Jaypee University of Engineering & technology, Guna, M.P.	Ist	2015
3	B.Tech.	Chemical Engineering	Jaypee University of Engineering & technology, Guna, M.P.	Ist	2013

Work Experience

S. No.	Type of Experience	Years	Months
1	Teaching	05	00
2	Research	00	00
3	Industry	00	00
4.	Others **(Industry sponsored PhD research work)**	00	00
Total		**05**	**00**

Subjects / Courses Taught

S. No.	Subject	UG/ PG	Class	No of times Subject Taught

			(FE/SE/TE/BE/ME)	
1	Process Dynamic & Instrumentation Control	UG	TE	1
2	Chemical Reactor Design (CRE II)	UG	TE	2
3	Process Plant Design & Economics	UG	BE	1
4	Fertilizer Technology	UG	TE	1
5	Solid Waste Management	UG	BE	1
6	Thermodynamics	UG	SE	1
7	Food Technology	UG	TE	1
8.	Industrial Management & Entrepreneurship	UG	BE	1
9	Chemical Engineering Thermodynamics	UG	TE	1
10	Nanotechnology	UG	BE	2
11	Advanced Transport Phenomena	PG	M. Tech	1

Conferences

	National	**International**	**State**	**SCI/ Scopus Indexed**	**UGC Approved**
Journals	00	07	00	07	00
Conferences	06	00	02	00	--

Research Publications

Publication Details

S. No	Document Details	Authors	Year	Source Details	ISBN/ ISSN	Publisher
1.	Sharma, S., Dutta, N.N. & Agrawal, G.K. Optimization of copper extraction from spent LTS catalyst (CuO–ZnO–Al_2O_3) using chelating agent: Box-behnken experimental design methodology. *Russ. J. Non-ferrous Metals* 58, 22–29 (2017). https://doi.org/10.3103/S1067821217010102	Sharma, S., Dutta, N.N. & Agrawal, G.K.	2017	https://doi.org/10.3103/S1067821217010102	**1067-8212**	Springer
2.	Sharma, S., Agarwal, G.K. & Dutta, N.N. Kinetic study on leaching of Zn and Cu from spent low-temperature shift catalyst (CuO/ZnO/Al_2O_3): application of taguchi design. *J Mater Cycles Waste Manag* 22, 1509–1520 (2020). https://doi.org/10.1007/s10163-020-01038-x	Sharma, S., Agarwal, G.K. & Dutta, N.N.	2020	https://doi.org/10.1007/s10163-020-01038-x	**1438-4957**	Springer
3.	LSER analysis of reactive extraction of Zn and Cu with bis (2-ethylhexyl) phosphate (HDEHP) in six different diluents	Sushmita Sharma, Govind Kumar Agarwal & Narendra Nath Dutta	2018	https://doi.org/10.1080/01496395.2018.1529043	**0149-6395**	Taylor & Francis
4.	Sharma, S., Gautam, A. & Gautam, S. A Greener Approach to Extract Copper from Fertilizer Industry Spent Catalyst. *Arab J Sci Eng* **45**, 7529–7538 (2020). https://doi.org/10.1007/s13369-020-04652-x	Sharma, S., Gautam, A. & Gautam, S.	2020	https://doi.org/10.1007/s13369-020-04652-x	**0377-9211**	Springer

5.	Sharma, S., Dutta, N.N. Kinetics of facilitated transport of Zn(II) from leach liquor of spent LTS catalyst across bulk liquid membrane. *J IRAN CHEM SOC* **17**, 2957–2967 (2020). https://doi.org/10.1007/s13738-020-01972-5	Sharma, S., Dutta, N.N.	2020	https://doi.org/10.1007/s13738-020-01972-5	**1735-207X)**	Springer
6.	Sharma, S., Agarwal, G.K. & Dutta, N.N. Reactive Extraction of Zn and Cu with Bis(2-Ethylhexyl)Phosphate: Optimization using Taguchi Orthogonal Design. *Russ. J. Inorg. Chem.* **64**, 651–660 (2019). https://doi.org/10.1134/S0036023619050176	Sharma, S., Agarwal, G.K. & Dutta, N.N.	2019	https://doi.org/10.1134/S0036023619050176	**0036-0236**	Springer
7	*Development of cashew nutshell-based composite material and heat-absorber panel: A comprehensive review*	S. Chougule, S. Sharma, H. Bhave, R. Kundiya, and J. Bhat	2025	*Bulgarian Chemical Communications*, Vol. 57, Special Issue B, pp. 260–273	**0324-1130**	Bulgarian Academy of Sciences

Publication Details (Conferences)

S. No	Document Details	Authors	Year	Conference Details	ISBN	Organised By
1.	S. Sharma, A. Gautam, S. Gautam, "The dissolution of copper from spent low temperature shift catalyst using chelating agent", CHEMCON-2014 IICHE.	S. Sharma, A. Gautam, S. Gautam,	2019	CHEMCON, 2015		Punjab University (Dr. S. S. Bhatnagar University Institute of Chemical Engineering & Technology), Punjab

						30 -31, 2015 October
2.	S. Sharma, N. N. Dutta, G. K. Agarwal "Studies on selective recovery of metal from spent catalyst by reactive extraction with bis (2-ethylhexyl) Phosphate" SCHEMCON 2016 Hyderabad.	S. Sharma, N. N. Dutta a, G. K. Agarwal	2016	SCHEMCON 2016		BV RAJU Institute of Technology, Hyderabad 2016
3.	Sushmita Sharma "Study on reactive extraction equilibria for selective recovery of metal from spent Low temperature shift catalyst (CuO-ZnO-Al2O3)" 32nd M.P. Young Scientist Congress March 10-11, 2017.	Sushmita Sharma	2013	32nd M.P. Young Scientist Congress		MPCST, Vigyan Bhawan Bhopal (M.P.) March 10-11, 2017.
4.	Sushmita Sharma "Hydrometallurgical leaching of Zn and Cu from spent Low Temperature Shift Catalyst (CuO/ZnO/Al2O3)" 33rd M.P. Young Scientist Congress March 15-16, 2018.	Sushmita Sharma	2018	33rd M.P. Young Scientist Congress, 2018		RDVV, Jabalpur, March 15-16, 2018.
5.	Extraction of transition metal ions from industrial solid waste.	Sushmita Sharma	2023	International Conference on Multidisciplinary innovative research in Technology & Management		SIDVI Foundation, October, 30-31, 2023
6.	Evaluating the impact of UV treatment on water quality: A Focus on TDS, Hardness, Chlorine content, and COD	Sushmita Sharma	2023	5th international conference on innovation in Engineering & Technology		AISSMSCOE, Pune (8th-9th April 2025)

PhD / ME / BE Student Guided for Project

Level	Ph.D.	M.E. (PG)	B.E. (UG)

No. of Student guided	**-**	00	05

Professional Memberships

Professional Body	Level (National/ International)	Type (Fellow/Life/Annual)	Membership No.
The Institution of Engineers (India) (IEI)	National	Associate Member	AM3162187

Patents / IPR Fil

S. No	Investigator Details	Title	Year	Status (Filed/Granted)	Details

Books Published

S. No	Title	Name of the Publisher	ISBN/ISSN Number

Research Grants Received

S. No	Program	Duration	Funding Agency	Grant Amount (INR)
2.				
3.				

Details of Worshop / STTP / FDP / Seminar / Conferences Organized

S. N	Title	Type	Duration	Organizer	Sponsoring Agency
1.	Selective Recovery of Valuable Metals from Spent Catalysts towards Sustainable Waste Management	National	6 Days (16/03/2026 – 21/03/2026)	ISTE & Department of Chemical Engineering, AISSMS College of Engineering, Pune	-

Contribution as Resource Person

S. No.	Place/ Organization	Topic	Level(National/Int/ State/Regional)	Date
1.	ISTE & Department of Chemical Engineering, AISSMS College of Engineering, Pune	Selective Recovery of Valuable Metals from Spent Catalysts towards Sustainable Waste Management	National	**20/03/2026**

Details of Worshop / STTP / FDP / Conferences Attended

S. No	Title	Type	Duration	Level (State/National/ International)	Sponsoring Agency
01	CHEMCAD	Workshop	2 days (8-9 Feb, 2014)	National	Organized by Department of Chemical Engineering, Jaypee University of

					Engineering Technology, Guna (M.P.), February 8-9, 2014.
2.	Application of MATLAB in Science Engineering"	Workshop	2 days (11-12 Feb), 2017	National	Organized by Department of Electronic and Communication Engineering, Jaypee University of Engineering Technolgy, Guna (M.P.), February 11-12, 2017.
3.	"Deep learning and applications"	FDP	5 days 9-13 Feb, 2019	National	Jointly organized by E ICT academics and JUET, Guna from December 9 to 13, 2019.
4.	"Alternative Fuels"	FDP	2 days (4-5) September 2020	National	Jointly organized by Rajasthan Technical University, Kota and Poornima collage of Engineering, Jaipur on September 4 - 5, 2020.
5.	Advancing Environmental Sustainability: Integrated approaches to Decarbonizatio n and Wastewater Treatment	FDP	5 days (9-13) September, 2024	National	Organised by Department of Chemical Engineering , HIT Haldia, West Bengal

	(AES IADWT-2024)				
6.	Emerging Technologies and Innovations: PioneeringEnvironmental Sustainability (ETIPES-2024)	FDP	5 days (30 Sep. – 4 Oct.), 2024	International	Organized by Department of Chemical Engineering, K.K. Wagh Instiitute of Engineering Education & Research
7.	Chemical Process Simulation using DWSIM	FDP	5 days, 11-15 November, 2024	National	Organized by the Department of Chemical Engineering, Gaytri Vidya Parishad college of Engineering , Vishakhapatnam in association with IIChE Training Institute , Indian Institute of Chemical Engineers, Kolkata
8.	NPTEL Workshop	Workshop	29 November	Natinal	Organized by MIT Academy of Engineering, Alandi, Pune
9.	ATAL Faculty Development Program titled *"Empowering Educators: Advanced*	FDP	13 days, 2-14 Demeber	National	Organized by the Department of Computer Engineering, AISSMS College of Engineering, Pune

	Design Thinking & Innovation				
10.	Chemical Process Safety	FDP	5 days, 16-20 December	National	Organized by Department of Chemical Engineering, Singhgad College of Engieering, Pune
11.	Building Tomorrow's Leaders: VIKSIT BHARAT @ 2047	Short term Tarining Prograame	25-29 November	National	NITTTR, Bhopal
12	Process Intensification through Heat Transfer Augmentation	FDP	5 Days (18–22 Feb 2025)	National	Department of Chemical Engineering, Gharda Institute of Technology, Lavel
13	Nanotechnology in Chemical Engineering	FDP	8 Weeks (Aug–Oct 2025)	National	NPTEL–AICTE
14	Transformative Engineering Pedagogy: Outcome-Based Education, AI-Enabled Teaching, and Assessment Excellence	ISTE-FDP	6 Days (2–7 Feb 2026)	National	E&TC Department, AISSMS College of Engineering, Pune / ISTE

	under NEP-2020				
15	Sustainable Waste and Water Management for a Cleaner Environment	ISTE-FDP	6 Days (16–21 Mar 2026)	National	Department of Chemical Engineering, AISSMS College of Engineering, Pune / ISTE

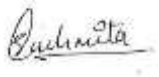
Major Professional Responsibilities Handled

S. No.	Role and Responsibilities
1	**Department Soft-Skill Coordinator:** Coordinating with the IHHI training coordinator for soft-skill sessions such as aptitude, personality development, and interview skills for SE, TE, and BE students; managing classroom schedules and maintaining attendance records.
2	**Department Mentor Coordinator:** Coordinating mentor allotment, assigning mentees to faculty mentors, and tracking student issues and their resolution.
3	**Department Student Activity Coordinator:** Managing co-curricular and extra-curricular activities; maintaining records of SE, TE, and BE students' participation in events and sports, along with their certificates.
4	**IIC Coordinator:** Coordinating IIC events and innovation activities and encouraging students to participate in various IIC initiatives.
5	**Department Club & Chapter Coordinator:** Coordinating clubs and chapters and collecting and maintaining related activity data and records.
6	**BE Final Year GFM (Guardian Faculty Member):** Monitoring attendance, academic performance, and overall progress of BE students; communicating with parents of defaulter students.
7	**NBA Criterion II Co-Coordinator:** Maintaining documents, collecting data, and compiling evidence required for NBA Criterion II.

Awards Received

S. No.	Awards	Year
1.	Young Scientist Award in an International Conference on Multidisciplinary innovative research in Technology & Management conducted by SIDVI Foundation on 30-31 October 2023.	30-31 October 2023.

Declaration: I hereby declare that all the statement made above are correct to the best of my knowledge and belief.



Dr. Sushmita Sharma

(Name with Signature)