



Profile of the Faculty

1. General Information:

Name of the Faculty	:	Dr. Jyotsna S. Thakur
Name of the Department	:	Department of Chemistry
Educational Qualifications	:	M.Sc., M. Phil., Ph. D.
Present Position	:	Assistant Professor
Address for Correspondence	:	602 A, Balaji Angan, Near S. T. Depot, Panvel, Dist Raigad, Maharashtra 410206
E-mail	:	thakurjyotsna@gmail.com
Contact Number	:	+917977856214
Specialization	:	Analytical Chemistry
Total teaching experience	:	30 yrs
Courses taught	:	B.Sc. (Chemistry), M. Sc. (Analytical Chemistry)
Research experience	:	15 yrs
Number of students registered for Ph.D. degree	:	03
Number of students awarded Ph.D. degree	:	01
Number of students registered for P.G degree by research	:	01
Number of students awarded P.G degree by research	:	--

2. Publication of Research Papers:

UGC listed journals	:	28
Peer reviewed journals	:	01
Non-peer reviewed journals	:	05
Conference proceedings	:	

3. List of Publication of Research Papers:

1. Gayatree Shinde, **Jyotsna Thakur***, Efficient Synthesis of 9, 9-Dimethyl-12-aryl-8, 9, 10, 12-tetrahydro-benzo [a] xanthen-11-one Derivatives under Solvent-free Conditions

- using CeO₂-decorated SiO₂@ Fe₃O₄ core-shell Nanoparticles, *Synthesis*, **2025**, 57 (19) 2839-2848
- Gayatree Shinde, **Jyotsna Thakur***, Greener and efficient route for the synthesis of 2-amino-7-hydroxy-4-aryl-4H-chromene-3-carbonitrile by employing magnetically recoverable Fe₃O₄@ SiO₂@ CeO₂ nanocatalyst under solvent-free conditions: *Research on Chemical Intermediates*, **2025**, 1-27.
 - Neha More, Rahul Bhise, Maheshwari Zirpe, Mukesh Padvi, **Jyotsna Thakur***, Low-temperature NO₂ gas sensing by delafossite-structured AgFeO₂ nanograins, *Journal of Nanoparticle Research*, **2024**, 26(7): 1-12.
 - Gayatree Shinde, **Jyotsna Thakur***, PEG-mediated facile one-pot synthesis of 1, 2-dihydro-1-arylnaphtho [1, 2-e][1, 3] oxazine-3-ones using magnetically separable magnetite supported MgO core-shell nanocatalyst: a Green approach, *Monatshefte für Chemie-Chemical Monthly*, **2024**, 155 (6), 643-652.
 - Gayatree Shinde, **Jyotsna Thakur***, Synthesis of 1, 8-dioxodecahydroacridines using core-shell structured Fe₃O₄@MgO MNP's: a solvent-free protocol, *Research on Chemical Intermediates*, **2024**, 50 (2), 817-838.
 - Maheshwari Zirpe, **Jyotsna Thakur***, Spindle-shaped AgFeO₂ nanoparticles for efficient removal of cationic and anionic dyes, *Journal of Dispersion Science and Technology*, 2023, 1-12.
 - Maheshwari Zirpe, **Jyotsna Thakur***, Magnetically Recoverable CMC/Fe₃O₄ Nanocomposite for Efficient Removal of Hg (II) and Cd (II) ions from the Aqueous Solution, *Separation Science and Technology*, **2023**, 1-12.
 - Gayatree Shinde, **Jyotsna Thakur***, Core-shell structured Fe₃O₄@MgO: magnetically recyclable nanocatalyst for one-pot synthesis of polyhydroquinoline derivatives under solvent-free conditions, *Journal of Chemical Sciences*, **2023**, 135, 14.
 - Gayatree Shinde, **Jyotsna Thakur***, Magnetically Recyclable Ag@Fe₂O₃ Core-shell Nanostructured Catalyst for One-pot Synthesis of 2-Aryl Benzimidazole and Benzothiazole, *Current Organocatalysis*, **2022**, 9 (3), 237-251.
 - Maheshwari Zirpe, **Jyotsna Thakur***, Sono-assisted synthesis of AgFeO₂ nanoparticles for efficient removal of Basic Green-4 dye from aqueous solution, *Journal of Nanoparticle Research*, **2022**, 24(12), 240.
 - Shinde Gayatree, Zirpe Maheshwari, **Thakur Jyotsna***, A green approach to the Rapid Synthesis of 2-Phenyl Benzoxazole and its derivatives using Magnetically Separable Ag@Fe₂O₃ Core-Shell Nanoparticles, *Research Journal of Chemistry and Environment*, **2021**, 25 (1), 23-30.
 - Maheshwari Zirpe, **Thakur Jyotsna***, Enhanced Photocatalytic Degradation of Methylene Blue Dye using Ag-Fe₂O₃ Core-shell Nanoparticles, *Research Journal of Chemistry and Environment*, **2021**, 25 (2), 121-127.
 - Mrunal Khambekar, Anuja Kumathekar, **Jyotsna Thakur***, Phytochemical Screening and Comparative Assessment of Anti-oxidant, Amylase and Anticoagulant Activity of

- Different Parts of Colocasia Esculenta (L) Schott. *Journal of Advanced Scientific Research*, **2020**, 11 (5), 161-167.
14. Maheshwari Zirpe, Hemlata Bagla, **Jyotsna Thakur***, Rapid Removal of $^{152+154}\text{Eu(III)}$ Using Polyaniline/Ceria Nanocomposite from Low Level Waste, *Journal of Inorganic and Organometallic Polymers and Materials*, **2020**, 30, 5053-5062.
 15. Jitesh Mundhe, Rachana Dutta, Rahul Patil, **Jyotsna Thakur***, Study of Bioaccumulation of Toxic Heavy Metals in the Siluriformes Fish found in Patalganga River and Possible Health Risk Associated with its Consumption, *International Journal of Advance and Innovative Research*, **2019**, 6 (1) 43-45.
 16. Maheshwari Zirpe, Hemlata Bagla, **Jyotsna Thakur***, Adsorptive removal of fluoride using polymer modified ceria nano-particles: determination of equilibrium, kinetic and thermodynamic parameters, *Separation Science and Technology*, **2019**, 55 (16), 2933-2947.
 17. **Jyotsna Thakur**, HMF as a Quality Indicator in *Garcinia indica* Fruit Juice Concentrate, *Current Research in Nutrition and Food Science*, **2018**, 6 (1), 227-233.
 18. **Jyotsna S. Thakur***, Vishvanath D. Patil, Pratap Chorghe, Ketan Patil, Combustion synthesized Cobalt Ferrite Nano-particles as Magnetically Recyclable Catalyst for Synthesis of Benzimidazole Derivatives, *Nanoscience & Nanotechnology-Asia*, **2018**, 8 (2), 281-288.
 19. **Jyotsna Thakur**, Bioaccumulation of Heavy Metals in Various Tissues of Tilapia Mossambicus Fish found in Gadhi River, Panvel, India, *International Journal of Engineering Technology Science and Research*, **2017**, 4(10) 143-147.
 20. Vishvanath D. Patil, **Jyotsna S. Thakur**, Nagesh R. Sutar*, Chromium doped nano In_2O_3 —An efficient catalyst for synthesis of benzoxazoles and 3, 4-dihydropyrimidin-2 (1H)-ones, *International Journal of ChemTech Research*, **2016**, 9 (7) 366-377.
 21. Vishvanath D. Patil, **Jyotsna S. Thakur**, Nagesh R. Sutar*, Synthesis of Bio-Active N-Heterocycles using Nanocrystalline Dy_2O_3 , *Indo American Journal of Pharmaceutical Research*, **2016**, 6 (6) 5772-5779.
 22. **Jyotsna Thakur**, Manda Mhatre, Assessment of Potential Dietary Toxicity of Heavy Metals in Tilapia Mossambica in the Industrially Polluted Area of M.I.D.C. Taloja, India, *International Journal of Engineering Technology, Management and Applied Sciences*, **2015**, 3 (7), 85-90.
 23. **Jyotsna Thakur**, Manda Mhatre, Potential Health Risk due to the Bioaccumulation of Heavy Metals in the Fish found in Dharamtar Creek, India, *International Journal of Engineering Technology Science and Research*, **2015**, 2 (7), 13-18.
 24. **Jyotsna Thakur**, Manda Mhatre, Bioaccumulation of Heavy Metals in Tilapia Mossambicus Fish from Industrially Polluted Patalganga River, India, *International Journal of Advanced Research*, **2015**, 3 (2), 486-490.
 25. Vishvanath D. Patil, **Jyotsna S. Thakur**, Shramesha Mhatre, Medha Gole & Aarti Jaiswal, Synthesis and Characterization of Nanocrystalline In_2O_3 and Its Efficacy as a

Catalyst for the one pot Synthesis of Amidoalkyl Naphthols, *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry*, **2013**, 43, 471-478.

26. **Jyotsna Thakur**, Dimple P. Dutta, Hemlata Bagla, and Avesh Kumar Tyagi, Effect of Host Structure and Concentration on the Luminescence of Eu^{3+} and Tb^{3+} in Borate Phosphors, *J. Am. Ceram. Soc.*, **2011**, 1–9.
27. **J. Thakur**, R. Shukla, N. Raje, D. Ghonge, H. Bagla, and A. K. Tyagi, Synthesis, Structural Characterization and Thermal Stability of Nano-crystalline Rare-Earth Chromates (RECrO_4) and Rare-Earth Chromites (RECrO_3), *Nanoscience and Nanotechnology Letters*, **2011**, 3, 648–654.
28. Vishvanath D. Patil, **Jyotsna S. Thakur**, Priyanka Rege, Jaymala Patil, Ganesh Dere, Ravisha V. Patil, In_2O_3 : Highly Efficient Catalyst for Synthesis of Quinoxaline under mild conditions, *International Journal of Chemistry & Application* **2010**, 3, 201-205.

4. Minor Research Project Completed:

Title of the project	Date of sanction	Duration	Grant received (Rs)	Funding agency
Study of Bio-accumulation of Metal in some Edible fish from Industrial Area Nearby Panvel, Dist Raigad	19/04/2012	2 y	1,10,000	UGC
Synthesis, characterization of Nanoparticles and their Scope in Catalysis	25/11/2010	1 y	25,000	University of Mumbai
Synthesis and Characterization of Magnetic Nanoparticles and their Applications in Catalytic Organic Transformations	2016	1 y	25,000	University of Mumbai
Soil Testing and Study of Agricultural and Nutrient Application Practices in Panvel Tehsil	10/10/2021	2 y	1,00,000	Institutional Seed Money
Metal-Based	01/01/2024	2 y	4,25,000	Industry

Nanoparticles and Nanocomposites for Smart Food Packaging				
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5. Membership:

- a. Life Member of society of material chemistry, B.A.R.C. , Mumbai
- b. Life Member of Indian Women Scientist Association, India
- c. Life Member of The Indian Science Congress
- d. Life Member of Association of Chemistry Teachers (ACT), India

6. Academic Staff College Orientation/Refresher courses attended:

Name of the Course	Place	Duration	Sponsoring Agency
Orientation Course	Academic Staff College, Goa University	15/05/2010 to 11/06/2010	UGC, New Delhi
Refresher Course	Academic Staff College, University of Mumbai, Mumbai	01/10/2012 to 20/10/2012	UGC, New Delhi
Refresher Course	Academic Staff College, University of Mumbai, Mumbai	27/10/2014 to 15/11/2014	UGC, New Delhi
Short Term Course	Human Resource Development Centre, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	01/06/2015 To 06/06/2015	UGC, New Delhi
Short Term Course	Human Resource Development Centre, University of Mumbai, Mumbai	10/12/2018 To 15/12/2018	UGC, New Delhi
Short Term Course	S.N. Arts, D.J. Malpani Commerce and B.N. Sarada Science College, Sangamner and HRDC, Savitribai Phule Pune University, Pune	27/07/2020 To 31/07/2020	UGC, New Delhi
Short Term Course	Faculty Development Center, HNBSGU, Srinagar Garhwal, Uttarakhand.	07/04/2022 To 13/04/2022	MHRD Scheme of PMMMMNMTT

Short Term Course	K. C. College and HRDC, University of Mumbai	09/03/2023 To 15/03/2023	UGC, New Delhi
Refresher Course	Sommaiya College, Vidyavihar (Online)	03/01/2024 to 16/01/2024.	UGC MMTTC, University of Mumbai

7. Participation in conferences, symposia, seminars and workshops:

Name of the Author(s)	Date	Title of the conference	Title of the proceedings of the conference	Page numbers (from-to)
Jyotsna Thakur, Hemlata Bagla, D. Dutta, and A. K. Tyagi	2-6, December 2008	International Symposium in Material Chemistry (ISMC-2008)	Proceedings of 2 nd DAE- BRNS International Symposium on Material Chemistry	200
Jyotsna Thakur, Hemlata Bagla	19-20, February 2010	22 nd Research Scholar Meet (RSM- 2010)	22 nd Research Scholar Meet (RSM-2010)	6
Jyotsna Thakur, Jayshree Ramkumar, S. Chandramouleesw aran Hemlata Bagla, A.K.Tyagi and A.V.R.Reddy	1-4, March 2010	Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC 2010),	Proceedings of DAE- BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC 2010),	507-508
J. Thakur, R. Shukla, N. Raje, H. Bagla, and A. Tyagi	7-11, December 2010	International Symposium in Material Chemistry (ISMC-2010)	Proceedings of 3 rd DAE-BRNS International Symposium on Material Chemistry	210
Jyotsna Thakur, Jayshree Ramkumar, S. Chandramouleesw aran, Hemlata Bagla, A.K.Tyagi	17-19, January, 2010	National Conference on 'The role of chemistry in health and diseases	The role of chemistry in health and diseases	71
Jyotsna Thakur, Dhanya Nair	28-30, January, 2011	XI All India Meeting of Women in Science	Science and Technology; Ethical issues	
Jyotsna S. Thakur	2014	National Seminar on Role of Best Practices in Quality Enhancement and Sustenance in	Role of Best Practices in Quality Enhancement and Sustenance in Higher Education Institutions,	136-138

		Higher Education Institutions,		
Vishvanath Patil, Jyotsna Thakur , Nagesh R. Sutar	12-13, January, 2015	UGC sponsored International Conference on Innovations in Chemical Research and Applied Chemical Sciences	Innovations in Chemical Research and Applied Chemical Sciences	5-6
Jyotsna Thakur , Vishvanath Patil	7-8, August 2015	UGC sponsored National conference on Innovative Research Techniques in Chemical and Physical Sciences (IRTCPS-2015)	Innovative Research Techniques in Chemical and Physical Sciences	507-508
Vishvanath Patil, Jyotsna Thakur , Nagesh R. Sutar	21-22, December 2015	UGC sponsored national conference on Advances in Material Chemistry and Applications	Advances in Material Chemistry and Applications	47
Jyotsna Thakur	2015	National Seminar on Quality Enhancement and Sustenance in higher Education	Quality Enhancement and Sustenance in higher Education	
Jyotsna Thakur , Manda Mhatre	28-29 th March 2016	National Seminar on Environmental Hazards and Problems: Issues and Solutions	Environmental Hazards and Problems: Issues and Solutions	132-136
M. R. Zirpe, J. S. Thakur	04-08, December, 2018	7 th Interdisciplinary Symposium in Material Chemistry (ISMC-2018)	Proceedings of 7 th DAE-BRNS Interdisciplinary Symposium on Material Chemistry	207
Gayatree Shinde, Jyotsna Thakur	17-19, June, 2021	Two day's National Conference on Recent Innovations and Concerns of Green Chemistry towards Sustainability	Recent Innovations and Concerns of Green Chemistry towards Sustainability	14
Maheshwari Zirpe, Jyotsna Thakur	17-19, June, 2021	Two day's National Conference on Recent Innovations	Recent Innovations and Concerns of Green Chemistry towards	31

		and Concerns of Green Chemistry towards Sustainability	Sustainability	
Gayatree Shinde, Jyotsna Thakur	17-19, June, 2021	8 th Interdisciplinary Symposium in Material Chemistry (ISMC-2020)	Proceedings of 8th DAE-BRNS Interdisciplinary Symposium on Material Chemistry	341
Maheshwari Zirpe, Jyotsna Thakur	17-19, June, 2021	8 th Interdisciplinary Symposium in Material Chemistry (ISMC-2020)	Proceedings of 8th DAE-BRNS Interdisciplinary Symposium on Material Chemistry	394
Maheshwari Zirpe, Jyotsna Thakur	22-26, November, 2022	10 th DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC 2022)	Proceeding of 10 th DAE-BRNS Biennial Symposium on Emerging Trends in Separation Science and Technology (SESTEC 2022)	176
Maheshwari Zirpe, Jyotsna Thakur	25-26, April, 2023	DRDO supported National Conference on Advances in Polymer Materials (APM-2023)	APM-2023	90
Pratibha Shukla, Neha More, Jyotsna Thakur	5-9 March, 2024	3rd DAE-BRNS Symposium on Current Trends in Analytical Chemistry (CTAC-2023)	Proceedings of 3rd DAE-BRNS Symposium on Current Trends in Analytical Chemistry	

8. Experience on the various committees at the college

- a. In charge, Faculty of Science
- b. Member, BOS, Department of Chemistry
- c. Coordinator, Planning and Evaluation Committee
- d. Member secretary, Research Ethics Committee
- e. Member secretary, IPR Cell
- f. N.S.S. Programme Officer (2010-2018)
- g. Member, Unfair means enquiry and student examination redressal cell
- h. Member, Academic Audit committee,

- i. Member, Admission committee,
- j. Member, Prospectus Committee
- k. Member, Outcome-based education monitoring committee
- l. Member, NEP-2020 implementation cell
- m. Member, Research Advisory Committee
- n. Member, Autonomy Monitoring Committee
- o. Chief Editor, Anugoonj, Research journal of College

9. Experience on the NAAC/ IQAC of the college

- a. Member, Internal Quality Assurance Cell (IQAC),
- b. Chairperson, Criteria VI: Governance, Leadership and Management (2006 to 2019)
- c. Chairperson, Criteria III: Research, Innovation and Extension (2019 to till date)

10. Experience at Mumbai University/Other Universities

- a. Member, Board of Studies in Chemistry, HSNC University, Mumbai