Dr. Parag Thakur

Assistant Professor, Sardar Vallabhbhai National Institute of Technology, Surat (INDIA)

https://orcid.org/0000-0003-2227-0143

BASIC INFORMATION:

Address: 003, Chem. Engg. Dept., Sardar Vallabhbhai National Institute of Technology, Surat-395 007 (Gujarat.) INDIA

Contact No.: (+91) 89992 54795

Date of Birth: 26/12/1994

E-mail: paragthakur674@gmail.com

paragthakur@ched.svnit.ac.in

Research at glance:	**Google Scholar**	
1. Journal articles: 10	Citations	746
2. Patents: 03	H-index	13
3. Book Chapters: 35	i-10 index	19
4. Book: 02	**Scopus**	
5. Conferences: 34	Citations	619
6. Workshops: 25	H-index	12
7. Journal Reviewer: 01		

- **PROFILE LINKS:**

1. **Linked-In:** https://www.linkedin.com/in/parag-Thakur-50255813b/
2. **Research Gate:** https://www.researchgate.net/profile/Parag_Thakur
3. **Google Scholar:** https://scholar.google.com/citations?user=RB2cw7oAAAAJ&hl=en
4. **Web of Science:** https://www.webofscience.com/wos/author/record/AAC-8681-2021

- **Experience**

1. **Sardar Vallabhbhai National Institute of Technology, Surat**

Job Role: Assistant Professor, From October 2023 to Till Date (1 year 8 months)

2. **Chonnam National University, South Korea**

Job Role: Post-Doc Fellow, June 2023 - September 2023 (4 Months)

3. **National Institute of Technology, Warangal**

Job Role: Ad-hoc Faculty, From August 2022 to May 2023 (10 Months)

4. **Visvesvaraya National Institute of Technology, Nagpur**

Job Role: Research Fellow (Full Time) August 2018- July 2022 (4 Years)

5. **Bhabha Atomic Research Centre, Mumbai**

Job Role: Research Intern (Full Time) July 2017- June 2018 (1 year)

- **Education**

1. Doctor of Philosophy (**Ph.D.**) at Chem. Engg, Dept. VNIT, Nagpur (2019-2022)
2. Master in Technology **(M. Tech)** in Chem. Engg, at UICT, Jalgaon (2016-2018)
3. Bachelor of Technology **(B. Tech)** in Chem. Engg, at UICT, Jalgaon (2012-2016)

- **Research Interest**

- ✓ Nanotechnology
- ✓ Bio-technology
- ✓ Waste to energy
- ✓ Renewable energy conservation and effective utilization
- ✓ Data Science and data analytics

Date: 1 June 2025

Research Details:

➢ Journal Articles:

1. Shriram S. Sonawane, Parag P. Thakur, Manjakuppam Malika, Hafiz Muhammad Ali, Recent Advances in the Applications of Green Synthesized Nanoparticle Based Nanofluids for the Environmental Remediation, *Current pharmaceutical biotechnology*, 2023;24(1):188-198 I. F.-2.83 (10.2174/1389201023666220411114620)
2. Parag P. Thakur, Shriram S. Sonawane, Hussein A Mohammed, Recent Trends in Applications of Nanofluids for Effective Utilization of Solar Energy, Current Nano-Science, 2023, vol. 19, issue 2, pp. 170-185; I.F.-1.51 (10.2174/1573413718666220119104138)
3. Parag Thakur, Nishant Kumar, Shriram Sonawane, Enhancement of pool boiling performance using MWCNT based nanofluids: A sustainable alternative for the heat recovery of wastewater and incinerator, Sustainable Energy Technologies and Assessments, Volume 45, 2021, 101-115, I.F.- *7.63* (https://doi.org/10.1016/j.seta.2021.101115)
4. Parag Thakur, Shriram Sonawane, Irina Potoroko, Shirish H Sonawane, Recent Advances in Ultrasound-assisted Synthesis of Nano-emulsions and their Industrial Applications, current pharmaceutical biotechnology, Volume 22, Issue 13, 2021; 1748 - 1758 I.F.- 2.83 (https://doi.org/10.2174/1389201021666201104150102)
5. Thakur, P. P., Khapane, T. S., & Sonawane, S. S. Comparative performance evaluation of flyash based hybrid nanofluids in micro-channel based direct absorption solar collector. Journal of Thermal Analysis and Calorimetry, 143, pages 1713–1726 (2021); I.F.-4.75 (https://doi.org/10.1007/s10973-020-09884-5)
6. Nirvik Sen, Parag Thakur, Sameer Ekhande, R. Sirsam, K.K. Singh, S. Mukhopadhyaya, K.T.Shenoy, Reactive stripping and precipitation of Uranium in Micro-reactors, *Separation science and technology*, *54*(9), 1430-1442, 2019; IF: 2.80 (https://doi.org/10.1080/01496395.2018.1563158)
7. Sonawane, S. S., Thakur, P. P., & Paul, R. Study on visco-elastic properties enhancement of MWCNT based polypropylene nanocomposites. Materials Today: Proceedings, 2020, 29, 929-933. (https://doi.org/10.1016/j.matpr.2020.05.417)
8. Sonawane, S. S, Thakur, P. P., Paul, R. Study of thermal property enhancement of MWCNT based polypropylene (PP) nanocomposites, *Materials Today Proceedings*, 2020, *Volume 27*(P1), 550-555 (https://doi.org/10.1016/j.matpr.2019.12.018)
9. Parag Thakur, Shriram Sonawane, Numeric and experimental investigations of Fe_2O_3 based nanofluids in direct absorption solar collector, Journal of Indian Chemical Society, 2020, 97 (10a), 1636-1641. I.F.- *0.24*
10. Sarita Charde, Malika Mudaliar, Parag Thakur, Shriram Sonawane, Artificial neural network model for prediction of viscoelastic behavior of polycarbonate composites, Journal of Applied Research Technology, 20 (2), (2022) (https://doi.org/10.22201/icat.24486736e.2022.20.2.1101)

➢ Patents

1. A hybrid nanofluids based drilling fluid and method of preparation thereof, Patent Application number: 202221050711, Date of filling 06/09/2022, Date of Grant: 28/08/2024 (Patent No. 548836)
2. Biological degradation of Sulphur waste from the mill rejects of thermal power plant, Application number: 202221047477, Date of filling 20/08/2022, Date of Publication: 14/04/2023
3. Development of Novel Process for micro-reactor-based Extraction of Heavy Antimony using ionic liquid-based Hybrid Nanofluids, Application number: 202321016794, Date of filling 13/03/2023, Date of Publication: 12/05/2023

• Books

1. Nanofluids: Fundamentals, Applications & Challenges, Emerging Materials and Technologies series, CRC Press, Taylor and Francis publications, 2024 (ISBN: 9781032519876)
2. Nanofluids for Efficient Energy Conservation and Process intensification, CRC Press, Taylor and Francis publications, 2025

➢ Book Chapters

1. Parag P. Thakur, Shriram S. Sonawane, Chapter 32. BiOX-based 2D composites for solar energy harvesting, BiOX-based Photocatalysts for Dual Applications, ELSEVIER publication, 2025, (ISBN: 9780443238611)
2. Parag P. Thakur, Malika Mudailar, Shriram S. Sonawane, Muthupandian Ashok Kumar, Chapter 1: Current overview of applications of the hybrid nanofluids, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00001-2)
3. Parag P. Thakur, Shriram S. Sonawane, Dr. Prakash Jadhav, Srinath Suranani, Chapter 3: Overview on Mass transfer enhancement mechanism using the nanofluids, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00003-6)
4. Parag P. Thakur, Malika Mudailar, Shriram S. Sonawane, Srinath Suranani, Hussain Mohammad, Chapter 4: Overview of the Heat transfer Enhancement mechanism using the nanofluids, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00004-8)
5. Parag P. Thakur, Malika Mudaliar, Shriram Sonawane, Irina Potoroko, Ashok Kumar Muthupandian, Chapter 5: Numerical and experimental investigations of nanofluids application solar collectors for the energy optimization, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00005-X)
6. Aaditi Pargaonkar, Parag Thakur, Shriram Sonawane, Chapter 6: Applications of nanofluid in boiling operation for enhancement of the critical heat flux (CHF), Applications of Hybrid Nanofluids in Chemical and Petroleum Industry, ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00006-1)
7. Parag Thakur, Malika Mudaliar, Shriram Sonawane, , Chapter 10: Applications of the hybrid

nanofluids in the CO_2 absorption and desorption processes, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00010-3)

8. Vishal S. Chandane, Ajit P. Rathod, Parag Thakur, Shriram Sonawane Chapter 11: Applications of hybrid nanofluids in the extraction processes, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00011-5)
9. Vishal S. Chandane, Pradeepkumar Ramteke, Ajit P. Rathod, Parag Thakur, Shriram Sonawane Chapter 12: Applications of hybrid Nano fluids in the Proton Exchange Membrane Fuel Cells, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00012-7)
10. Parag Thakur, Malika Mudailar, Shriram S. Sonawane, Chapter 13: Challenges of nanofluid applications in the chemical industry, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00013-9)
11. Malika Mudailar, Parag Thakur, Shriram S. Sonawane, Chapter 15: Applications of the nanofluids for the drilling fluid, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00015-2)
12. Malika Mudailar, Parag Thakur, Shriram S. Sonawane, Chapter 16: Application of the nanofluids for the oil mobility, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00016-4)
13. Uma Sankar Behera, Parag Thakur, Shriram Sonawane, Chapter 17: Nanofluids applications in chemical enhanced oil recovery: current opinion and recent advances, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00017-6)
14. Malika Mudailar, Parag Thakur, Shriram S. Sonawane, Chapter 18: Investigation of the effects of nanofluids on the hole cleaning efficiency of water based drilling mud, *Applications of Hybrid Nanofluids in Chemical and Petroleum Industry,* ELSEVIER publication, 2025 (ISBN: 9780443214516) (https://doi.org/10.1016/B978-0-443-21451-6.00018-8)
15. Parag Thakur, Shriram Sonawane, Introduction to nanofluids, nanofluid applications for advanced thermal solution, ELSEVIER publications, 2023, 1-19 (ISBN: 9780443152399) (https://doi.org/10.1016/B978-0-443-15239-9.00001-1)
16. Parag Thakur, Aaditi Pargaonkar, Clara Gongloves, Shriram Sonawane, Synthesis and characterization of Nanofluids, nanofluid applications for advanced thermal solution, ELSEVIER publications, 2023, 21-41, (ISBN: 9780443152399) (https://doi.org/10.1016/B978-0-443-15239-9.00002-3)
17. Parag Thakur, Irina Potoroko, Shriram Sonawane, Stability of nanofluids, nanofluid applications for advanced thermal solution, ELSEVIER publications, 2023, 43-62, (ISBN: 9780443152399) (https://doi.org/10.1016/B978-0-443-15239-9.00003-5)
18. Akash Kumar, Parag Thakur, Malika Manjakuppam, Shriram Sonawane, Promising nanoparticles for water reuse, *Resource Recovery in Drinking waters,* Elsevier Publications, 2023, 129-145 (ISBN: 978-0-323-99344-9)

(https://doi.org/10.1016/B978-0-323-99344-9.00003-7)

19. Parag Thakur, Manjakuppam Malika, Shriram Sonawane, Energy recovery from industrial waste waters, *Resource Recovery in Industrial Waste waters,* Elsevier Publications, 2023, 319-336 (ISBN: 978-0-323-95327-6) (https://doi.org/10.1016/B978-0-323-95327-6.00009-9)
20. Manjakuppam Malika, Parag P Thakur, Shriram S Sonawane, Sulfate/Sulfur recovery from municipal wastewater treatment plants, *Resource Recovery in Municipal Waste waters,* Elsevier Publications, 2023, 145-164(ISBN: 978-0-323-95327-6) (https://doi.org/10.1016/B978-0-323-99348-7.00003-5)
21. Parag Thakur, Shriram Sonawane, Current overview of nanofluid applications, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 1-26 (ISBN: 978-0-32-390564-0) (https://doi.org/10.1016/B978-0-323-90564-0.00004-0)
22. Parag Thakur, Shriram Sonawane, Ratiram Chaudhary, Thermo-physical and optical properties of the nanofluids, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 27-52 (ISBN: 978-0-32-390564-0) (https://doi.org/10.1016/B978-0-323-90564-0.00006-4)
23. Dhananjay Singh, S K Patel, P Kumar, D Pal, Parag Thakur, Shriram Sonawane, Experimental investigations of direct absorption solar collectors, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 107-132 (ISBN: 978-0-32-390564-0)(https://doi.org/10.1016/B978-0-323-90564-0.00011-8)
24. Parag Thakur, Irina Potoroko, Shriram Sonawane, Numerical and experimental investigations of nanofluid application in car radiators, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 133-162 (ISBN: 978-0-32-390564-0)(https://doi.org/10.1016/B978-0-323-90564-0.00008-8)
25. Shriram Sonawane, Parag Thakur, Sparsh Bhaisare, Prakash Jadhav, Mathematical, Numerical and experimental investigations of nanofluids applications in Pool Boiling process, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 163-184(ISBN:978-0-32-390564-0) (https://doi.org/10.1016/B978-0-323-90564-0.00003-9)
26. Shriram Sonawane, Parag Thakur, Sparsh bhaisare, Prakash jadhav, Mathematical, Numerical and experimental investigation of nanofluids application in Flow Boiling processes, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 185-204 (ISBN:978-0-32-390564-0) (https://doi.org/10.1016/B978-0-323-90564-0.00002-7)
27. Parag Thakur, Shriram Sonawane, Mathematical and Numerical investigations of CO_2 absorption and desorption process, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 205-226 (ISBN: 978-0-32-390564-0) (https://doi.org/10.1016/B978-0-323-90564-0.00007-6)
28. Parag Thakur, Hasan Uslu, Shriram Sonawane, Experimental investigation of CO_2 absorption process using nanofluids, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 227-250 (ISBN: 978-0-32-390564-0) (https://doi.org/10.1016/B978-0-323-90564-0.00001-5)
29. ST Yerpude, AK Potbhare, PR Bhilkar, Parag Thakur, Pratiksha Khiratkar, Martin F Desimone, PR Dhongle, Shriram Sonawane, Clara Goncalves, RG Chaudhary, Computational analysis of nanofluids based drug delivery system: preparation, Current Development, and

applications of nanofluids, *Applications of Nanofluids in Chemical and Bio-medical Processing Industry,* Elsevier publication, 2022, 335-364 (ISBN: 978-0-32-390564-0) (https://doi.org/10.1016/B978-0-323-90564-0.00014-3)

30. Shriram Sonawane, Abhijit Gadhe, Parag P Thakur, Shirish Hari Sonawane, Hussein A Mohammed, Nano-biotechnology for bacterial modification for wastewater treatment and resource recovery, *Novel Approaches Towards Wastewater Treatment and Resource Recovery Technologies,* Elsevier Publications, 2022, 295-312 (ISBN: 978-0-32-390627-2)(https://doi.org/10.1016/B978-0-323-90627-2.00008-3)
31. Shriram Sonawane, Malika Mudaliar, Parag Thakur, Shirish Sonawane, Carbon Nano tubes (CNT) based hybrid Nano fluids for the waste water treatment plants in the industry, *Novel Approaches Towards Wastewater Treatment and Resource Recovery Technologies,* Elsevier Publications, 2022, 313-324 (ISBN: 978-0-32-390627-2) (https://doi.org/10.1016/B978-0-323-90627-2.00021-6)
32. Parag Thakur, SS Sonawane, SH Sonawane, Nano-particle-enhanced ionic liquids (NEIL) for the waste water treatment, *Novel Approaches Towards Wastewater Treatment and Resource Recovery Technologies,* Elsevier Publications, 2022, 325-338 (ISBN: 978-0-32-390627-2) (https://doi.org/10.1016/B978-0-323-90627-2.00020-4)
33. Parag Thakur, Shriram Sonawane, Nanomaterials for membrane synthesis: Introduction, mechanism and Challenges for wastewater treatment, *Handbook of Nanomaterials for Wastewater Treatment: Fundamentals, Current status and Scale-up Challenges*, Elsevier Publication, 537-553 (ISBN: 978-0-12-821496-1) (https://doi.org/10.1016/B978-0-12-821496-1.00009-X)
34. Parag Thakur, Sonawane, S. S., Sonawane, S. H., & Bhanvase, B. A., Nanofluids-based delivery system, encapsulation of nanoparticles for stability to make stable nanofluids. *Encapsulation of Active Molecules and Their Delivery System*, Elsevier Publication, 141-152 (ISBN No. 978-0-12-819363-1) (https://doi.org/10.1016/C2018-0-05369-4)
35. Parag Thakur, Nirvik Sen, Sameer Ekhande, R. Sirsam, K.K. Singh, S. Mukhopadhyaya, K.T. Shenoy, Reactive Stripping & Precipitation of Uranium in microreactors, *International Nuclear Information System (INIS)*Year 2018, Volume 49, Issue 37. (RN:49072564)

➢ Conferences

Session In-charge:

1. 18th Annual Session of chemical engineering students congress (SCHEMCON 2022) at NIT, Warangal (23rd to 24th September 2022)
2. International Conference on Education 5.0-Role of Institution, Industry and Society (ERIIS-2022) at NIT, Warangal (14-15 October 2022)

Conference Papers presented:

3. Parag Thakur, Application of nanofluids for the PVT solar panels, 16th International conference on advancement in petrochemical sector and empowering sustainable development leading to Viksit Bharat-APM 2025 organized by Central Institute of Petrochemical engineering & Technology (CIPET): IPT-Lucknow 8th-10th March, 2025***(Received Best oral presentation award)***
4. Parag Thakur, Experimental analysis of fly ash based nanofluids for CO_2 absorption, International Conference on emerging materials trends in chemistry to revolutionize

Indian chemical industries for Viksit Bharat@2047 organized at JECRC University, Jaipur, 19th-21st December, 2024

5. Parag Thakur, Fly based nanofluids for thermal applications, International Conference on Water & Sustainable Development 2024 (ICWSD 2024) organized by VNIT, Nagpur, 8-9 November 2024
6. Parag Thakur, Experimental and numerical analysis of CO_2 absorption processes using fly ash based nanofluids, 15th International conference on advancement in polymeric materials-APM 2025 organized by Central Institute of Petrochemical engineering & Technology (CIPET): IPT-Ahmedabad, 14th-16th March, 2024
7. Parag Thakur, Shriram Sonawane, Recent trends of CO_2 absorption process, 6th Conference by Asia-Oceania Sono-chemical Society (AOSS-23), NIT, Warangal, 28-30 September, 2023 ***(Received Best oral presentation award)***
8. Parag Thakur, Shriram Sonawane, Experimental and numerical analysis of CO2 absorption processes using fly ash based nanofluids, CHEM-CONFLUX-22, NIT, Prayagraj, 14-16 April, 2022 ***(Received Best oral presentation award)***
9. Parag Thakur, Shriram Sonawane, Performance assessment of the CNT deposited surfaces for the pool boiling application, *International Conference on Advances in Sustainable Research for Energy and Environmental Management (ASREEM-2021),* 6-8 August 2021, SVNIT, Surat ***(Received Best oral presentation award)***
10. Parag Thakur, Tushar Khapne, Shriram Sonawane, Synthesis of BNNP+Mxene/Polycarbonate nanocomposite using twin-screw extrusion reactor for thermal property enhancement, *International Conference on Advances in Sustainable Research for Energy and Environmental Management (ASREEM-2021),* 6-8 August 2021, SVNIT, Surat.
11. Parag Thakur, Shriram Sonawane, Review on the Application of Nanofluids for the Environmental Remediation, *International Conference on Advances in Sustainable Research for Energy and Environmental Management (ASREEM-2021)*, 6-8 August 2021, SVNIT, Surat.
12. Parag Thakur, Pooja Pradip, Shriram Sonawane, Development of efficient CO_2 absorption processes using MWCNT based nanofluids, *2nd International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2021)*, August 20-22, 2021**,** NIT, Jalandhar
13. Synthesis of BNNP+Mxene/Polycarbonate nanocomposite using twin-screw extrusion reactor for thermal property enhancement, International Chemical Engineering Conference 2021 (ICheEC 2021), September 17-19, 2021, NIT, Jalandhar
14. Synthesis of BNNP+Mxene/Polycarbonate nanocomposite using twin-screw extrusion reactor for thermal property enhancement, *International Conference on Reaction Engineering (ICRE-2021)* 7th- 8thMay, 2021, NIT, Raipur
15. Parag Thakur, Shriram Sonawane, Photo-thermal Removal of CO_2 from MWCNT/HMDA nanofluid, *The Ninth DAE-BRNS Biennial Symposium on "Emerging Trends in Separation Science and Technology (SESTEC-2020)*, 22-26 March 2021, BARC, Mumbai
16. Praneet Lokhare, Rahul Bhad, Parag Thakur, Shriram Sonawane, Numeric and experimental investigation of cobalt oxide-based nanofluids in direct absorption solar collector, *International Conference on Multifunctional and hybrid materials for chemical process, energy, environment and medical applications (ICMHCEE 2019)*, 9-11 September 2019, NIT, Trichy, Tamil Nadu
17. Parag Thakur, Shriram Sonawane, Numeric and experimental study of the car radiator performance, CHEM-CONFLUX-20, 14-16 February 2020, NIT, Prayagraj

18. Comparative study on the thermal property and haze enhancement using boron nitride nanosheets and MXene nanoparticles in a polycarbonate matrix, MHRD, GoI, TEQIP-III Sponsored International E-Conference on Recent Transformations in Chemical & Textile Technology, 24-26 August 2020.
19. Shriram Sonawane, Parag Thakur, Ritesh Paul, Study of Visco-Elastic property enhancement of MWCNT based polypropylene (PP) Nanocomposites, *11th National Conference on Solid State Chemistry and Allied Areas (NCSCA-2019)*, 20-21 December, 2019, S.K. Porwal College, Nagpur
20. Shriram Sonawane, Parag Thakur, Ritesh Paul, "Study of thermal property enhancement of MWCNT based polypropylene (PP) Nanocomposites", *First International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2019)*, 12-14 September 2019, KLE Dr. M.S. Sheshgiri COET, Belagavi, Karnataka.
21. Parag Thakur, Mayur Darekar, K.K. Singh, S. Mukhopadhyaya, K. T. Shenoy, Numerical Simulation of Liquid-liquid two-phase flow at different Microfluidics junctions, *The Eighth DAE-BRNS Biennial Symposium on "Emerging Trends in Separation Science and Technology (SESTEC-2018)*, May 23-26, 2018, BITS, Pilani (Goa).
22. Parag Thakur, Nirvik Sen, K.K. Singh, S. Mukhopadhyaya, K.T. Shenoy, Reactive Stripping & Precipitation of Uranium in microreactors, *The Eighth DAE-BRNS Biennial Symposium on "Emerging Trends in Separation Science and Technology (SESTEC-2018)*, May 23-26, 2018, BITS, Pilani (Goa).
23. Parag Thakur, Nilesh Patil, Column Design by Visual Basic and Comparative Study with MATLAB, *International Conference on Global Trends in Engineering, Technology and Management (ICGTETM-2017)*, SSBT's COET, Jalgaon. 22-24 December 2017.
24. Nirav Lekinwala, Parag Thakur, Rajkumar Sirsam, Portable and Low-Cost Source of Light, *SCHEMCON-2015*, MIT Academy of Engineering, Alandi (D), Pune, 12-13 September 2015
25. Nirav Lekinwala, Parag Thakur, Rajkumar Sirsam, Production of Biodiesel from Algae, *CHEMCOALESCE 2015*, Sir Visvesvaraya Institute of Technology, Nasik.
26. Parag Thakur, Review on Heat Pipes, *National level student paper presentation (MILESTONE 2014),* College of Engineering and Technology, Jalgaon.
27. Nirav Lekinwala, Parag Thakur, War gases, *Recent Advances in Chemical Sciences and Technology-2013,* North Maharashtra University, Jalgaon
28. Nirav Lekinwala, Parag Thakur, Agitated Absorber, *AVISHKAR-2014*, North Maharashtra University, Jalgaon.
29. Parag Thakur, Mayur Darekar, Computational fluid dynamics of Micro-reactors, *AVISHKAR-2017*, North Maharashtra University, Jalgaon.
30. Parag Thakur, Pragati Thakur, Software development for process calculations, *AVISHKAR-2017*, North Maharashtra University, Jalgaon.
31. Parag Thakur, Nirvik Sen, Shriram Sonawane, Reactive stripping and precipitation of Uranium in Micro-reactors, *Research Scholars Day (RSD-2019),* VNIT, Nagpur.

Conference Attended:

32. *International Conference on Multifunctional Electronic Materials and Processing (MEMP-2021)* conducted by C-MET Pune on digital platform during 8-10th March 2021.
33. *International Conference (online mode) on Chemical Science for Drug Discovery & Therapy 2020,* during 22-26 July, 2020, Organized by Department of Chemistry VNIT Nagpur, Nagpur,

India.

34. *1 Day online conference in intellectual property and startups* on 20th January 2024 event organized by turnip Innovation festivals 2024

- **Reviewer of Journals**
  - Separation Science & Technology (Taylor & Francis Publication; Impact Factor: 1.2)

- **Short Term Training Program/Workshops**

STTP/Workshop organized:

1. 2nd Edition of One-week Short Term Training Program on 'Instrumentation Techniques for the environmental remediation and hands-on Training (ITER-2025) at SVNIT, Surat from 19-23 May 2025
2. 1st Edition of 6-days Short Term Training Program (STTP) on 'Introduction to chemical engineering softwares (IChES-25) at SVNIT, Surat on 11-12 January, 18-19 January, 25 January and 1st February 2025
3. 1st Edition of One-week Short Term Training Program on 'Instrumentation Techniques for the environmental remediation and hands-on Training' (ITER-2024) at SVNIT, Surat from 13-17 May 2024

STTP/Workshop attended:

1. 1 week workshop on Empowering educators: student centric teaching pedagogy at SVNIT, Surat from 9 June to 13 June 2025
2. One day workshop on REINVENT at SVNIT, Surat on 3rd May 2025
3. Two days workshop on pedagogy to promote design and entrepreneurship under CBDE, MMTTP at ABV-IIITM, Gwalior from 6th march 2025 to 7th March 2025
4. 4-day faculty development programme on 'recent pedagogies for better learning' organized at Institute guest house, SVNIT from 22-25 July 2024
5. One week faculty development program on Education and Institutional development (EDID-2024) organized by SVNIT, Surat from 15th-21st May, 2024
1. 1 Week faculty Development program on cyber-attacks and defense conducted by C-DAC, Noida from 2nd January 2024 to 6th January 2024
2. 1 week GIAN (Global initiative of Academic network) on "Greener and cleaner ultrasonic process for the production of nanomaterials and nano-pharmaceuticals" organized by NIT, Warangal, 27 June-2 July, 2022 (Foreign Faculty: Manickam Sivakumar, Brunei)
3. 1 week GIAN (Global initiative of Academic network) on "Green Processing & Synthesis" organized by VNIT, Nagpur, 2-6 May, 2022. (Foreign Faculty: Prof. Ashok Kumar Muthupandian)
4. National Level Webinar on 'Writing and Evaluation of Scientific Research Articles' jointly organized by Research Promotion Cell, Seth Kesarimal Porwal College of Arts, Science and Commerce, Kamptee & Department of Chemistry, Taywade College, Mahadula-Koradi, 31st July 2021
5. AICTE ATAL sponsored 1 week workshop on Nanotechnology for the sustainable development and green processes, 24-28 August, 2020, VNIT, Nagpur (Secured A+ Grade)
6. 1 day workshop on why manuscript get rejected, NIT, Jalandhar, 27 August 2020
7. 63rd ISRO-IIRS Outreach Program on "Remote Sensing Applications in Agricultural Water Management" August 3–7, 2020 (Secured A grade)
8. Webinar "Opportunities for Chemist and Chemical Engineers in Chemical and Allied

Industries, VJTI, Mumbai, 18 July 2020

9. 1-week STTP on CFD with OpenFOAM, July 23-28 2020, VNIT, Nagpur
10. 1 Week FDP on Pedagogy of Scientific Writing, Reporting and Scholarly Networks, Organized by Feroze Gandhi Institute of Engineering & Technology, Rae-Bareli During June 19-23, 2020
11. 1 day webinar on Understanding open educational resources offered by commonwealth of learning, Canada, 23 June 2020
12. 7 Week online course on LATEX organized by IIT Bombay, 24 September- 11 November 2019
13. Two-day Training Session on TGA and DSC and Two-day Training on DLS organized by VNIT, Nagpur, 3-6 April 2019
14. Two days Training Session on DMA & Mechanical Hybrid Rheometer organized by TA Waters, Bangalore, 12-13 March 2019
15. One week GIAN Workshop on Process Intensification organized by NIT, Warangal, 7-11 January 2019 (Foreign Faculty: Andrzej Górak)
16. Three days' Workshop on Python at organized by VNIT, Nagpur, 10-12 August 2018
17. One-week short term training program (STTP) on Advanced Industrial Waste Management Techniques at University Institute of Chemical Technology, North Maharashtra University, Jalgaon, Maharashtra, 14-19 May 2018
18. Two days Workshops on Aspen plus, COMSOL, HINT, ANSYS FLUENT at Azeotropy 2017 organized by the chemical engineering department, IIT Bombay.
19. Two-week short term training program (STTP) on Process Intensification: Fundamentals to Applications at University Institute of Chemical Technology, North Maharashtra University, Jalgaon, Maharashtra, 26 December –4 January 2017
20. Two days' Workshop on ASPEN at Azeotropy 2015 organized by the chemical engineering department, IIT Bombay.
21. One Day Workshop on COMSOL in 2014 organized by the chemical engineering department, U.I.C.T., Jalgaon.

- **Expert lecture delivered:**

1. International Conference on Nano Structured Materials and Nanocomposites (ICN 2025) at Mahatma Gandhi University, Kottayam, Kerala, India (12-14 September 2025)
2. 2nd Edition of One-week Short Term Training Program on 'Instrumentation Techniques for the environmental remediation and hands-on Training (ITER-2025) organized by SVNIT, Surat. (21 May 2025)
3. 1st Edition of 6-days Short Term Training Program (STTP) on 'Introduction to chemical engineering software (IChES-25) organized by SVNIT, Surat. Lecture Date: 12 January 2025
4. One-week short term Training Program (STTP) on Nanotechnology: Trends and Application organized by Jawaharlal Darda institute of Engg. And Technology, Yavatmal (14 January 2025)
5. 1st Edition of One-week Short Term Training Program on 'Instrumentation Techniques for the environmental remediation and hands-on Training (ITER-2024) organized by SVNIT, Surat. (15 May 2024)

- **Students Guidance**

PhD

1. Jayraj Rana, (Registered in May 2025)
2. Jay Narang, (Registered in May 2025)

MTech

1. Raj Parmar (P24CH005)
2. Nishit Kumar Patel (P24CH004)

BTech

1. Harsh Bhatia (U22CH047)
2. Archit Kulshrestha (U22CH051)
3. Prathamesh Vyas (U22CH053)
4. Aman Singh (U22CH062)
5. Harish Khandelwal (U22CH073)
6. Sahil Bharodiya (U22CH074)

Summer Interns

1. Anshu Mishra (U22CH094)
2. Yash Dumbhare (U23CH033)
3. Dushyant Singh Hada (U23CH034)

- **Administrative Duties at SVNIT, Surat**
- ***Institute level***

1. Member, BTech and M Sc Admission committee through JoSAA/CSAB 2025 (Academic Year 2025-26)
2. Mentor, Capacity Building for Design & Entrepreneurship Development (Academic Year 2025-26)
3. Member, B Tech I, Fee Remission Committee (2023-24, 2024-25)
4. Member, Anti-Ragging Committee, Boys hostel (Gajjar Bhavan) (Academic Year 2025-26)
5. Invigilation duties for following exams
   - Junior Assistant Exam (15-17 February 2025)
   - NEET (UG)-2025 (4 May 2025)
6. Member, PhD Thesis Evaluation Committee of following students:
   - Mr. Gajera Jeet Bhovanbhai (Roll No. D20MA007), Date: 10/04/2024
   - Ms. Rashmita Behera (Roll No. DS19CH001), Date: 06/06/2025

- ***Department level***

1. Member-Secretary, Committee for Higher Studies/Career Counselling (from 3/10/24 to till date)
2. Member-Secretary, Committee for Accreditation & Academic Audit (from 3/10/24 to till date)
3. Member-Secretary, Committee for Utilization of Various Open & Free Source Software

(from 3/10/24 to till date)

4. Member, PhD Admission Committee (Dec 2023, June 2024, July 2025)
5. Member, PhD admission (QIP) 2024-25
6. Member, MTech Admission Committee, 2024-25
7. Department Coordinator, Internship of UG & PG students (From 12/01/24 to till date)
8. Department Coordinator, Career Development Cell (formally Training & Placement Cell) (2024-2026)
9. Department Coordinator, Departmental website/social media update, Media Cell
10. Co-Chairperson, BIS Standards Club, (from 26/12/23 to till date)
11. Department Coordinator, Orientation Program of
    - BTech 1st year (16-18 August 2024)
    - MTech 1st year and PhD 1st year (30-31 August 2024)
12. Lab Co-In charge: CAD lab (New building and old building)
13. PhD Examiner of following students:
    - Ms. Monali Chhatbar (D18CH006)
    - Ms. Rashmita Patel (D23CH001)
    - Mr. Arth Gandhi (D23CH002)
    - Mr. Abhishek Mehta (D23CH003)
14. MTech Examiner of following students:
    - Jay Pandya (P22CH009)
    - Shivam Modi (P22CH001)
15. Purchase Committee member of following Equipment
    - FO-MD setup fabrication (DoChE/181/2024) (Approximate cost: Rs. 2,48,980)
    - Liqui-Cel™ EXF 2.5X8 Series membrane contactor GS01, Polypropylene X50 (DoChE/562/2024) (Approximate cost: Rs. 4,90,000)
    - Osmometer (DoChE/113/2024) (Approximate cost: Rs. 7,00,000)
    - Probe-type Sonicator (Approximate cost: 8,00,000)
    - Thermal Conductivity analyzer (Approximate cost: 3,00,000)

- **Teaching**

  - **Theory Subjects**

1. Data Science for Chemical Engineers (CH 374), BTech 3rd year-V Sem, (2025-26)
2. Introduction to Macro-Molecules (CH 252), BTech 2nd year-III Sem (2024-25, 2025-26)
3. Programming for Chemical Engineers (CH 108), BTech 1st year-II Sem (2024-25)
4. Nanomaterials Synthesis by Chemical Methods (CH 427), BTech 4th year-VII Sem (2024-25)
5. Engg Maths (CH 202), BTech 2nd year-III Sem (2023-24)

  - **Practicals**

1. Heat Transfer laboratory (CH-205), BTech 2nd year-III Sem (2024-25, 2025-26)
2. Fluid flow operations laboratory (CH 203), BTech 2nd year-III Sem (2025-26)
3. Programming for Chemical Engineers (CH 108), BTech 1st year-II Sem (2024-25)
4. Mass Transfer laboratory-II (CH-301), BTech 3rd year-V Sem (2024-25)
5. Chemical Engg laboratory-I (CHCH-104), MTech 1st year-I Sem (2024-25)
6. Mass Transfer laboratory (CH-206), BTech 2nd year-IV Sem (2023-24)
7. Chemical Reaction Engg-I laboratory (CH-204), BTech 2nd year-IV Sem (2023-24)

8. Instru. & Process Control laboratory (CH 302), BTech 3rd year-VI Sem (2023-24)