

	Name	Dr. Mrs. Sunita M. Jadhav (Raut).					
	Designation	Professor, Department of Chemical Engineering					
	Qualification	Ph.D. Chemical Engg, M. E. Chemical,					
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	Experience	Teaching	24Years	Industry	--	Research:	--
Area of Interest	Cavitation based hybrid processes, waste water treatment, process intensification						
Publications	International Journal (s):	22	National Journals (s) :	00			
	Books/Book Chapters	03	National and International Conference (s):	03			
Research Publications Details	<p>International Journal:</p> <ol style="list-style-type: none"> P.B. Patil, S. Raut-Jadhav, A.B. Pandit, Effect of intensifying additives on the degradation of thiamethoxam using ultrasound cavitation, Ultrason. Sonochem. 70, (2021) 105310. (Impact factor-6.513, indexed in Scopus and Web of Science) Niraj S. Topare, Sudarshan Surange, AishwaryaChaudhari, S. Raut-Jadhav, Adsorption of Rhodamine-B by using Citrus Peel Powder: Influence of Operating parameters, Journal of Indian Chemical Society Vol. 97, Issue No. 11a, November 2020, pp-1-7, ISSN:00194522 (indexed in Scopus and Web of Science) S. Raut-Jadhav, M. Badave, S.H. Sonawane, D.R. Saini, A.B. Pandit, Treatment of the pesticide industry effluent using hydrodynamic cavitation and its combination with process intensifying additives (H₂O₂ and ozone), Chem. Eng. J. 295 (July 2016) 326-335. (Impact factor- 4.612, indexed in Scopus and Web of Science) S. Raut-Jadhav, S.H. Sonawane, D.R. Saini, A.B. Pandit, Effect of process intensifying parameters on the degradation of commercial carbamate pesticide (Methomyl) in the aqueous solutions by using hydrodynamic cavitation based hybrid processes, Ultrason. Sonochem. 28 (2016) 283-293. (Impact factor- 4.5, indexed in Scopus and Web of Science) S. Raut-Jadhav, S.H. Sonawane, D.R. Saini, A.B. Pandit, Intensification of degradation of methomyl (carbamate group pesticide) by using the combination of ultrasonic cavitation and process intensifying additives, Ultrason. Sonochem. 31 (2016) 135-142. (Impact factor- 4.5, indexed in Scopus and Web of Science) S. Raut-Jadhav, V.K. Saharan, D. Pinjari, S.H. Sonawane, D.R. Saini, A.B. Pandit, Synergistic effect of combination of AOP's (hydrodynamic cavitation and H₂O₂) on the degradation of neonicotinoid class of insecticide, J. Hazard. Mate. 261 (2013) 139– 147. (Impact factor- 5.5, indexed in Scopus and Web of Science) S. Raut-Jadhav, V.K. Saharan, D. Pinjari, S.H. Sonawane D.R. Saini, A.B. 						

	<p>Pandit, Intensification of degradation of imidacloprid in aqueous solutions by combination of hydrodynamic cavitation with various advanced oxidation processes (AOPs), J. Environ. Chem. Eng. 1 (2013) 850-857 (Impact factor- 4.3, indexed in Scopus and Web of Science).</p> <p>8. Suraksha Rasal, Priyesh V. More, Chaitanya Hiragond, Sunita Jadhav and Pawan K. Khanna, Rapid homogenization method for synthesis of core/shell ZnO/CdS nanoparticles and their photocatalytic evaluation, Adv. Mater. Lett. 7(5) (2016) 390-397. ISSN:0976397X, 09763961 (Scopus indexed-SNIP:1.81, SJR:0.57, H-index:15)</p> <p>9. T.M. Thite and S.M. Jadhav, Synthesis of TiO₂ Photocatalyst for Rhodamine B-Dye Degradation under Solar Light, International Journal for Research in Applied Science & Engineering Technology 5 (2017) 2210-2214.</p> <p>10. R.F. Momin, P. B. Patil, S. Raut-Jadhav, Sonolytic Degradation of Acid Blue 80 Dye, International Journal for Research in Applied Science & Engineering Technology (ISSN: 2321-9653) 5(VI) June 2017, 2342-2349</p> <p>11. A.P. Patil and S. M. Jadhav, Simulation Analysis Of Fully Thermally Coupled Distillation Column, Int. J. Chem. Sci. 14(3) (June 2016)1-12 ISSN 0972-768X (Scopus indexed SJR:0.15, H-index:06)</p> <p>12. P.V. Ganorkar, S.M. Jadhav, S.G. Gaikwad, Recative distillation of Nicotinic acid with tri-iso-octylamine(TIOA) in 1-Decanol, International journal of advanced technology in engineering and science 2 (2014) 377-383. (Impact factor- 1.02)</p> <p>13. S.V. Nikam, S.M. Jadhav, Photocatalytic degradation of metamitron (herbicide) in aqueous solution, International journal of advanced technology in engineering and science 2 (2014) 424-432. (Impact factor- 1.02)</p> <p>14. Y.D. Thakare, S.M. Jadhav, Degradation of brilliant green dye using cavitation based hybrid techniques, International Journal of Advanced Engineering Technology IV (2013) 31-36. (Impact factor-1.121)</p> <p>15. B. Salunkhe, S.J. Raut, Removal of Heavy Metal Ni (II) And Cr (VI) from aqueous solution by Scolecite natural zeolite, Int. J. Chem. Sci. 10 (2012) 1133-1148. (Impact Factor-1.15, indexed in Scopus)</p> <p>16. S. Patil, S.J. Raut, Synthesis and characterization of ZnO Nanoparticles and 50% ZnO – bentonite nanocomposite, Int. J. Chem. Sci. 10 (2012) 1124-1132. (Impact Factor-1.15, indexed in Scopus)</p> <p>17. N.S. Topare, S.J. Raut, S.J. Attar, 3D Model Design and Simulation of Photocatalytic Reactor for Degradation of Dyes Using Solidworks Software, Int. J. Chem. Sci. 10 (2012) 808-816. (Impact Factor-1.15, indexed in Scopus)</p> <p>18. N.S. Topare, S.J. Raut, Extraction of oil from Algae by solvent extraction and oil expeller method, Int. J. Chem. Sci. 9 (2011) 1746-1750. (Impact Factor-1.15, indexed in Scopus)</p> <p>19. N.S. Topare, S.J. Raut, Biodiesel production from Jatropha Curcas Oil,</p>
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	<p>Int. J. Chem. Sci. 9 (2011) 1607-1612. (Impact Factor-1.15, indexed in Scopus)</p> <p>20. N.S. Topare, S.J. Raut, Novel Design of Laboratory Scale Photo-catalytic Reactor for Degradation of Dyes, Chemical Product Finder 31 (2012) 35-38.</p> <p>21. N.S. Topare, S.J. Raut, V.C. Renge, S.V. Khedkar, A Study of Process Variables for the Photo-catalytic Degradation of Rhodamine-B Using TiO₂ & Nb₂O₅, Journal of Indian Chemical Society 90 (2013) 2193-2198. (Impact factor-0.435, indexed in Scopus and Web of Science)</p> <p>22. N.S. Topare, S.J. Raut, Novel Design of Laboratory Scale Photo-catalytic Reactor for Degradation of Dyes, Chemical Engineering World 47 (2012) 59-62. (indexed in Scopus)</p> <p>International Conferences:</p> <ol style="list-style-type: none"> 1. Prasad Patil, Sunita Raut-Jadhav, Ultraviolet light (UV) based advanced oxidation processes for degradation of acetamidrid, International conference on Science Engineering and Technology organized by ISSRD, 7(2021) 32-36. (ISBN: 978-93-90150-33-5) 2. Niraj S. Topare, Sunita Raut-Jadhav, Shantini A. Bokil, Satish V. Khedkar, "A Review on Photochemical Technology For Removal of Pesticides", International Conference on Recent Trends in Chemical Sciences Organized by INDIAN CHEMICAL SOCIETY held on December 26-29, 2020, published in the conference proceeding pp. 129 3. Niraj S. Topare, Sunita Raut-Jadhav and Shantini A. Bokil, Received best paper award under the Chemistry category for the topic "Application of Nb2O5 as Photocatalyst for Degradation of Rhodamine-B under Visible-Light Irradiation" in International Virtual Conference on Recent Trends In Science And Humanities held in Mohamed Sathak A. J. College of Engineering, Chennai on 23/09/2020. 4. S. Raut-Jadhav, P.B. Patil, Photocatalytic and sonophotocatalytic degradation of carbamate pesticide using anatase TiO₂ and rGO-TiO₂ nanocomposite, international conference NANOCON018 organized by BV(DU)COE, Pune, 4 (2018) 570-576.
<p>Books / Book chapters Published</p>	<ol style="list-style-type: none"> 1. Raut-Jadhav, S.; Bagal, M.V. Advanced graphene-transition metal-oxide-based nanocomposite photocatalysts for efficient degradation of pollutants present in wastewater. In Multifunctional Nanostructured Metal Oxides for Energy Harvesting and Storage Devices; Vijay, B.P., Paresh, H.S., Bhanvase, B.A., Eds.; CRC Press: Boca Raton, FL, USA, June 2020.(ISBN: 9780429296871) 2. MV Bagal and S Raut-Jadhav, Process for removal of micropollutants using nanomaterials. In Handbook of Nanomaterials for Wastewater

	<p>Treatment: Fundamentals and Scale up Issues; Bhanvase, B.A., Sonawane S.H., Vijay, B.P., Pandit A.B., Eds.; Elsevier, March 2021. (ISBN: 9780128214961) (indexed in Scopus)</p> <p>3. Niraj S. Topare, Sunita Raut, Photocatalytic Reactor Design & Its Application, Lambert Academic Publishing House, Germany, 2012</p>
Citations and H-Index	<p>Google Scholar: (Till March 2021) Total citations-401 H-Index- 09 i10 index-09</p> <p>Scopus: (Till March 2021) No. of paper listed in Scopus-16 No. of Citations-285 H-Index-08</p>
Research Projects	<p>Project completed: Title of the project : The study of degradation of organic pollutants using cavitation based hybrid techniques. Funding agency : TEQIP- II Duration : 28/10/2013- 27/10/2014 Amount : 2.40 Lacs</p> <p>Project ongoing: Title of the project : Photocatalytic and Sonophotocatalytic Degradation of Organic Pollutants under Visible Light Funding agency : TEQIP- II Duration : 2yrs Amount : 2.985 Lacs</p>
Professional Memberships	<ol style="list-style-type: none"> 1. Life member IChE (LM 29728) 2. Life member ISTE
Workshop/ Seminar/ Conference attended	<ol style="list-style-type: none"> 1. Participated in AICTE ATAL Academy sponsored FDP on “Computer Science and Biology ” organized by PVPIT, Budhagaon, 18-22 January 2021 2. Participated in a workshop on “Modeling and Simulation of Heat Transfer Equipment using Aspen Plus” organized by PVPIT, Budhagaon, 16-20 March 2021 3. Participated in a workshop on "Intellectual Property Rights (IPR) Awareness :Patent Drafting and Filing" organized by R and D cell in association with Brainiac IP solutions, Pune, 23-25 July 2020 (Online mode) 4. Participated in a workshop on “Technical Leadership Training Program” BV(DU)COE, Pune, 16-17 July 2019 and 30 August 2019 5. Participated in a one week workshop on “Nanostructured materials in catalysis” organized by Sinhgad College of Engineering, Pune, on 25-29 March 2019 6. Participated in Two days seminar on “Environment and green technologies for sustainable development” organized by AISSMS College of Engineering ,

	<p>Pune on 18-19 January 2019</p> <ol style="list-style-type: none"> 7. Participated in “Elsevier Connect Seminar” held on 21/12/2018 at Taj Vivanta , Pune 8. Participated in workshop on “How to draft patent and conduct searches”, organized by Brainiac IP Solutions Pvt. Ltd., Pune. Venue-MCCIA Tower, Pune, Date- 3-4 February 2018. 9. Participated in workshop on “Problem based learning” organized by NITTTTR, Kolkata, Date- 25-29 June 2018. 10. UGC Networking Resource Centre-Summer Research Fellowship, Institute of Chemical Technology, Mumbai (24 April 2012- 23 June 2012) 11. TEQIP-II sponsored workshop on “Mantras for personal effectiveness”, 6th August 2013.
Achievements	<ol style="list-style-type: none"> 12. Best Researcher Award by Bharati Vidyapeeth Deemed University on 26th April 2016 (University foundation day) 13. Award of UGC Networking Resource Centre-Summer Research Fellowship, Institute of Chemical Technology, Mumbai (24 April 2012- 23 June 2012) 14. Certificate of appreciation for valuable contribution in the capacity of member of Core Committee of International Conference NANOCON-012 , NANOCON-014 and NANOCON-018
Extra Activities	<ol style="list-style-type: none"> 1. In-charge, Research and Development Cell, BVDUCOE, Pune. 2. Convener, workshop on "Intellectual Property Rights (IPR) Awareness :Patent Drafting and Filing" organized by R and D cell in association with Brainiac IP solutions, Pune, 23-25 July 2020 (Online mode) 3. Core committee member of International Conferences, NANOCON-010, NANOCON-012, NANOCON 014 , NANOCON-016 and NANOCON018 organized by BVDUCOE, Pune. 4. Convener, workshop on “LaTeX”, 13-14 Feb. 2019. 5. Convener, workshop on “Patent Drafting and Filing”, 9th February 2019. 6. Convener, workshop on “Applications of MATLAB” in association with Centre for Development of Advanced Computing (C-DAC), Pune, 18-19 May 2018. 7. Resource person for National workshop on “ Advances in effluent treatment : an industrial perspective” organized by B.V.D.U.C.O.E. Pune, 5-6 October 2018 8. Co-convener, International conference- NANOCON-018 organized by BVDUCOE, Pune. 9. Convener, TEQIP-II sponsored workshop on “Research Methodology”, 6-8 Oct 2015 10. Convener, TEQIP-II sponsored workshop on “Advanced statistical methods and software tools for the analysis of data”, 29-30 March 2016 11. Convener, TEQIP-II sponsored workshop on “Preparation of research proposals to funding agencies”, 29-31 Dec 2016 12. Convener, TEQIP-II sponsored workshop on “Patent drafting and filing”, 17-19 March 2017

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| | <ol style="list-style-type: none">13. Co-Chairman for session- "Synthesis, characterization and applications" in NANOCON-014, 14-15 Oct 201414. Member, Board of Studies, Chemical Engineering, BVUCOE.15. Member of Faculty of Engineering and Technology, BVU. |
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