CURRICULUM VITAE

Dr. Sharda Kosankar

Senior Scientist /Assistant Professor, AcSIR Environnemental Biotechnology and Genomics Division CSIR-NEERI, Nagpur

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Present Status	Senior Scientist and Assistant Professor, ACSIR (Academy of Scientific and Innovative Research) at Environmental Biotechnology and Genomics (EBG)					
	Division, CSIR-NEERI Nagpur from 17 th Oct 2018 to till date.					
NABET	EIA Coordinator for					
accreditation	Sector 1: Mining					
	Sector 3: Irrigation/River Valley					
	Sector 4: Thermal power plant					
	Functional Area Expert (FAE): Ecology and Biodiversity					
Educational Qualification	Exam.	Name of Institute	Name of Board/ University	Year of Passing		
	S.S.C.	Jawahar Navodaya Vidyalaya, Navegaon Khairi, Nagpur	CBSE Board	1993		
	H.S.S.C.	Shantiniketan Jr. Coll.	Maharashtra Board	1995		
	B.Sc. (Chem, Bot, Zoo)	Shivaji Sci. College	Nagpur Uni.	1998		
	M. Sc. (Zoology)	Institute of Science	Nagpur Uni.	2000		
	B.Ed.	Radhika B.Ed. College	Nagpur Uni.	2002		
	Ph.D.	CSIR-NEERI	Nagpur Uni.	2010		
	PG Diploma in Environmental Law and Policy	-	WWF and National Law University	2023		
Topic for	> Postdoctoral research on the topic "Anaerobic biogas energy generation					
PDF and	by treatment of industrial wastewaters" under the guidance of Dr. Shant					
Ph.D.	Satyanarayan (Ex. Deputy Director and Scientist, WWT Division, NEE and Dr. S.R. Wate (Ex. Director, NEERI)					
	> Ph.D. topic- "Treatment of industrial wastewaters by vermitechnology					
	and its effects on tissues and cellular organelles of earthworms", under					
	_	Dr. Shanta Satynarayan (I		•		
	NEERI) and Dr. P.R. Chaudhari as a co-guide (Ex. Deputy Director and					
	Scientist, NEERI)	<u></u>				
Fellowships Awarded	Senior Research Fellowship of CSIR, Oct-2008					
Awarueu	Senior Research Fellowship (Extended.) of CSIR, April 2010					
	 Research Associateship of CSIR, February-2011 Women Post-Doctoral Fellowship of UGC, March-2011 					

Prize/Award

- ➤ Rashtriya Gaurav Award by India International Friendship Society, New Delhi (31st August ,2022).
- Navodayan of the Year 2022 award in research category by Navsanvad Foundation Pune, MH (15th August, 2022)
- ➤ Global Eminent Scientist Award of the year 2022 by VIJ trust, India. (2nd August, 2022)
- ➤ Best International Researcher Award by ISSN and World Research Council (on 4th June 2022).
- ➤ Best Scientist Award by CSIR-NEERI on the 64th Foundation Day (08th April 2022).
- ➤ Best paper presentation award in international conference on environmental management (28-30, Oct-2005), organized by Jawaharlal Nehru Technological University, Hyderabad. For the paper "Vegetation cover and dynamics of CO₂ Sequestration in the urban atmosphere of Nagpur city, India".
- ➤ Best paper presentation award in international conference on Environmental Impact and Risk Assessment (25-26, Oct-2007), organized by NEERI, Nagpur. For the paper, "An ecofriendly and sustainable treatment of herbal pharmaceutical wastewater using earthworm (*Eudrilus eugeniae*)".
- Young Scientist Award in national conference on 'Current scenario on global challenges in germplasm conservation and biodiversity' organized by Department of Botany, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur on 7-8 July, 2010. For the paper, "Toxicity evaluation of vermitreated effluents of herbal and bulk drug pharmaceutical wastewaters by algal bioassay".
- ➢ Best paper award in international conference on sustainable water resource management and treatment technologies, Water- 2011, organized by NEERI Nagpur, 19-21 January 2011. For the paper, "Toxicity evaluation of vermiculated effluents of herbal and bulk drug pharmaceutical industry by fish bioassay".

Work Experience	Post Held	Institute/organization	Tenure (From)	То	
	Senior Scientist	EBG Div. CSIR-NEERI, Nagpur	17/10/18	Till date	
	Scientist	EBG Div. CSIR-NEERI, Nagpur	17/10/13	16/10/18	
	Research Officer	MoEF, Regional Office, Bhopal	24/08/12	15/10/13	
	UGC - Women Post- Doctoral Fellow	EIRA Div. CSIR-NEERI, Nagpur	17/03/11	23/08/12	
	CSIR - Senior Research Fellow (Ext.)	EIRA Div. CSIR-NEERI, Nagpur	30/09/10	16/03/11	
	CSIR - Senior Research Fellow	EIRA Div. CSIR-NEERI, Nagpur	06/04/09	29/09/10	
	Project Assistant	EIRA Div. CSIR-NEERI, Nagpur	22/04/03	20/11/08	
Work Profile at NEERI Work Profile at MoEFCC, RO, Bhopal	 Preparation of Project Proposals Basic EIA for biological environment by ecological survey for proposed or existing plants in and around the vicinity of project site Biological evaluation of floral and faunal biodiversity Assessment of ecological sensitivity of the project Assessment of impacts on terrestrial flora and fauna due to air emissions and effluent discharge and land use changes Assessment of impacts on aquatic flora and fauna by analysis of plankton Evaluation and prediction of impacts on ecology of project site, considering the environmental laws and the Indian environmental standards Delineation of measures for abatement of biological stress Preparation of green belt development plan To deal with the files of environmental clearances, compliance, complaints, enquiries, monitoring etc. pertaining to all environment aspects of industries, transportation, ports, harbors and beaches, river valley, thermal, mining and CRZ cases of western region. Preparation and compilation of monthly and quarterly reports including 				
	environmental cleara				
Research Papers Published	 Sharda Dhadse, P.R. Chaudhari and R. Sarin (2005) Biological impacts of climatic change with respect to temperature and light with special reference to flaring of gas at oil and CBM fields. Journal of Environmental Pollution Control. 8(5): 58-66. 				
	2. P.R. Chaudhari, D.G. Gajghate, Sharda Dhadse , S. R. Wate (2007) Monitoring of environmental parameters for CO ₂ sequestration: a case study of Nagpur City, India. Int. J. of Environmental Monitoring and Assessment. 135(1-3): 281-290. (IF 1.039)				
	3. Dhanashree Kalbande, Sharda Dhadse , P.R. Chaudhari and S. R. Wate (2008) Biomonitoring of heavy metals by pollen in urban environment. Int. J.				

- of Environmental Monitoring and Assessment. 138: 233-238. (Impact factor 1.039)
- 4. Pramila Kumari, **Sharda Dhadse**, P.R. Chaudhari and S. R. Wate (2007) Bioindicators of pollution in lentic water bodies of Nagpur city. J. of Environmental Science and Engineering. 49(4): 164-169.
- Sharda Dhadse, Pramila Kumari and L. J. Bhagia (Jan-2008) Fly ash: characterization, utilization and government initiative in India – A Review Indian J. of Scientific and Industrial Research. (67): 11-18. (Impact factor 0.387)
- Shanta Satyanarayan, P.R. Chaudhari, Sharda Dhadse (2008) Limnological study on Lonar Lake: A unique brackish crater lake in India. Proceedings of Taal 2007, The 12th World Lake conference, page 2061-2066
- 7. **Sharda Dhadse,** J. P. Kotangle, P.R. Chaudhari and S. R. Wate (2009) Diversity of birds at Panipat refinery, Haryana (India) Int. J. of Environmental Monitoring and Assessment. 158:1-8 (**Impact factor 1.039**)
- Shashikank Sitre, Sharda Dhadse, Shanta Satyanarayan (2009) Toxicity of herbal pharmaceutical wastewater to a freshwater Crustacean Ceriodaphnia dubia. Int. J. of Bulletin of Environmental Contamination and Toxicology 82:275-279 (Impact factor 1.62)
- 9. Sharda Dhadse, Shanta Satyanarayan, P.R. Chaudhari and S. R. Wate (2010) Vermifilters: A tool for sustainable aerobic biological treatment of herbal pharmaceutical wastewater. Int. J. of Water Science and Technology. 61:9, 2375-2380 (IF 1.45)
- 10. Sharda Dhadse, D.G. Gajghate, P.R. Chaudhari, D.R. Satpathy and S. R. Wate (2011) Interaction of urban vegetation cover to sequester air pollutants from ambient environment. Published in book 'Air Pollution New Developments'. www.intechweb.org p. 303-314. (Completed 200 downloads within six months and 3000 downloads in 2 years)
- 11. **Sharda Dhadse**, N.C. Kankal and Bharti Kumari (2012) Study of diverse methanogenic and non-methanogenic bacteria used for the enhancement of biogas production. Int. Journal of Life Sciences Biotechnology and Pharma Research. 1(2):176-191.
- 12. **Sharda Dhadse**, P. Meshram, P. Sakhare (2012) Environmental impact assessment of pesticides used in India and its regulations. Journal of Bionano Frontier. 5(2-II):298-307.
- 13. **Sharda Dhadse**, N.C. Kankal and P. Meshram (2012) Study of soil strata of crude oil pipeline route from Salaya to Bhogat in Gujrat, India. Journal of Bionano Frontier. 5(2-II):186-197.
- 14. Vidya Nagrale, Sharda Dhadse and D.S. Ramteke (2012) Review on capturing of greenhouse gases through biogas technology: A need for sustainable development. Journal of Biological and Physical Sciences. 1(IV): 128-132

- 15. Supriya Mane, **Sharda Dhadse** and D.S. Ramteke (2012) Designing of a greenbelt for mitigating impacts of air pollution. J. of Biological and Physical Sciences. 1(IV): 196-204.
- 16. Sharda Dhadse, Dhanashree Kalbande, P.R. Chaudhari and S.R. Wate (2013) Added advantages of selenium in spirulina: A nutritional health food. Book entitled, "Ecorestoration and biodiversity conservation". Avishkar publishers.ed. G.P. Mishra and Asha Gupta. Pp 118-130, ISBN 13: 9788179104187.
- 17. **Sharda Dhadse,** Shanta Satyanarayan and P.R. Chaudhari (2014) Bulk drug pharmaceutical wastewater treatment by vermifiltration an ecofriendly technology. Journal of BioSciences and Informatics, 1(2): 95-107
- 18. Chetana Khandar, **Sharda Kosankar** (2014) A review of vehicular pollution in urban INDIA and its effects on human health. Journal of Advanced Laboratory Research in Biology 1(III):54-61
- 19. Kankal N.C., Sharda Dhadse (2014) Biodiversity of phytoplankton, zooplankton and benthos in the Bay of Bengal at the east coast of India, Andhra Pradesh. Recent Trends in Life Sciences. Edi. M.H. Fulekar, R.K. Kale. I.K. International Publishing House Pvt. Ltd. p. 22-38
- 20. Sharda Dhadse, P.R. Chaudhari, Shanta Satyanarayan and S. R. Wate (2014) Vermitreatment of Pharmaceutical Wastewaters and Nutrient Bioassay of Treated Effluents for Reuse as Irrigation Water. American Journal of Engineering Research (AJER) 3(8):113-123
- 21. Sharda Kosankar, Ruchita Haldar, S.K. Goyal (2016) Impacts of Clusters of Thermal Power Plants on the Life of Farmers in the Vidarbha Region, Maharashtra. International Journal of Engineering Science and Computing, 6(8):2670-2674
- 22. Ruchita Haldar, **Sharda Kosankar**, LN Sangolkar (2016) Ecological significance of macro-invertebrats as an indicator of environmental pollution. International Journal of Engineering Science and Computing, 6(11):3302-3307
- 23. Ruchita Haldar and **Sharda Kosankar** (2018) Moringa Oliefera: The Miracle Tree. Int. J. of Advance Research Ideas and Innovation in Technology, 3(6):966-970
- 24. Ruchita Haldar, **Sharda Kosankar** (2018) Infestation of *Pauropsila tuberculata* (Gall Insect) on *Alstonia scholaris* (Saptaparni) tree. Int J. of Creative Research Thoughts, Vol.6 Issue 1, 1695-1699
- 25. Kiran Bawaskar, Ruchita Haldar, **Sharda Kosankar** (2018) Faunal diversity of CSIR-NEERI campus, Nagpur, Maharashtra, India Int J. of Life Sciences 6(2): 311-325
- 26. Piyush Ghoshe, Rohini Raut, Sharda Dhadse, H.J. Purohit (2020) Bioaccumulation of Mercury in Food Chain by Vegetables and Experimental Investigations to Study its uptake in Plants. Sustainable Development of Natural Resources: Challenges and Solutions. Mount Hill Publishing Company. 46-51

- 27. Sumedh Meshram1, Rohini Raut, **Sharda Dhadse**, H.J. Purohit (2020) Study of Biomagnification of Mercury in the Food Chain of Aquatic Ecosystem and Experiments on its Bioaccumulation in Fishes and Earthworms. Sustainable Development of Natural Resources: Challenges and Solutions. Mount Hill Publishing Company 186-191
- 28. Kumud Paydalwar, **Shardha Dhadse** (2020) Biomonitoring of lakes of Nagpur city, Maharashtra, India Journal of Indian Association for Environmental Management.
- 29. **Sharda Dhadse**, Shahrukh Nawaj alam, Mallikarjuna Rao (2021) Developing nutrient rich biofertilizer by co-vermistabilization of aquatic weeds using herbal pharmaceutical waste water along with sediment lake. Journal Bioresource Technology Report. Volume 13. Elsevier 13:100633
- 30. **Sharda Dhadse**, Rohini Raut, Piyush Ghose (2022) Mercury accumulation into the crop plants (vegetables/fruits) in agricultural lands nearby Nagpur, Maharashtra state, India. Journal of Environmental Science & Engineering. 61(1):663-667
- 31. Shivani Bagade, **Sharda Dhadse** and Purushottam Sakhare (2021) Adverse Auditory Effects of Firecrackers on Living Creatures: A Mini Review. Scholarly Journal of Otolaryngology. 7(4):778-780. DOI: 10.32474/SJO.2021.07.000267
- 32. **Sharda Dhadse**, Pramila Majumdar, Ashwini Valluri and Purushottam Sakhare (2021) Status, Threats and Conservation of the Wetland Ecosystem Dominated with Mangroves in India. Plantae Scientia. 4(6):277-286
- 33. **Sharda Dhadse** and Shanta Satyanarayan (2022) Role of Microbial and Organic Amendments for the enrichment of methane production in bioreactor. "Biogas" Book Chapter in Intech web Publisher.
- 34. Sharda Dhadse, Pramila Mazumdar, Shahrukh Nawaj Alam, Shivani Bagade, Purushottam Sakhare, (2022) Aquatic weeds diversity in India and its management by composting: A review. Plantae Scientia 5(2): 29-35
- 35. Ashwini Valluri and Sharda Dhadse (2022) UVC based sterilization for hospitals during COVID-19 pandemic for the control of pathogenicity. Journal of Indian Association for Environmental Management, 42:1 (43-48)
- 36. Sharda Dhadse, P. Sakhare, G. Chary, Aniket Aglawe, M.M. Rao, Keerthana V.R., Farsana Nazrin V.B., R. Raut (2021) Critical insight on the recent scenario of degraded lands in India and its bioremediation status. DOI:10.22541/AU.162313678.89828570/V1, Corpus ID: 236287019
- 37. Sharda Dhadse (2022) Biomonitoring of Butterfly Diversity in the CSIR-NEERI Premises, Nagpur, MS, India. Journal of Indian Association for Environmental Management. Vol. 42, No. 2 (2022), 35-41
- Shahnoor Khan Sharda Dhadse (2022) Prospects of Future Hearing Aids based on the Bioacoustics System of Insects. Scholarly Journal of Otolaryngology ISSN: 2641-1709 DOI: 10.32474/SJO.2022.08.000299 page 933-037

- 39. Sharda Dhadse (2022) Vermiconversion of Textile Industrial Sludge; waste management and nutrients recycling, Chapter in book, "Agricultural Waste Management" Intech web publisher. Agricultural Waste New Insights Edi. Dr. Fiaz Ahmad and Prof. Muhammad Sultan DOI: 10.5772/intechopen.107260
- 40. Mohit Mishra, Bhairav Prasad, Arunima Sur Karkun, Arpita Srivastava Aditya Kate, **Sharda Dhadse**, and Akanksha Choubey (2022) Role of Downstream Processing for Production and Purification of Fermentation-Based Products Produced via Whole-Cell Biotransformation Edi. Whole-Cell Biocatalysis Next-Generation Technology for Green Synthesis of Pharmaceutical, Chemicals, and Biofuels. Edi. Sudheer D. V. N. Pamidimarri, Sushma Chauhan, Balasubramanian Velramar, CRC Press Taylor and Francis
- 41. Sharda Dhadse (2023) Role of Earthworms *Eudrilus eugenie* for the rapid vermistabilization of unutilized biomass: A case study of vermicomposting unit at Gadchiroli district Maharashtra, India. Published in the book, "Revisiting the sustainable goals in applied zoology" Edi. Prof. Ashok Saxena, Prof. Kamal Jaiswal, Dr. Suman Mishra. Narendra Publishing House, Delhi. India. Pg 61-80.

Books Published

1. Sharda Dhadse (2022) Industrial wastewaters Treatment by Vermitechnology. Orange books publisher.

Research Papers Presentation in Conferences

- Sharda Dhadse, P.R. Chaudhari, D.G. Gajghate and S.R. Wate (2005) Vegetation cover and dynamics of CO₂ sequestration in the urban atmosphere of Nagpur city, India, in proc. Int. Conf. on Environmental Management organized by Jawaharlal Nehru Technological University, Hyderabad (28-30, Oct-2005) p.170-178.
- Sharda Dhadse, N.S. Raman and S.R. Wate (2006) Emerging environmental legal instrument: an overview, in souvenir of VIIth South Asian workshop on Odonatology Organized by Hislop College Nagpur, (9-11, Jan-2006), p.37.
- 3. **Sharda Dhadse**, P.R. Chaudhari, H.V. Singh and S. R. Wate (2006) Trophic status of coastal waters around Andaman Islands with special reference to planktonic biodiversity. Proc. of int. workshop on "Water" organized by NEERI, Nagpur (20-21, Jan -2006), p.47.
- 4. Sharda Dhadse, Sonali Suple, P.R. Chaudhari S.R. Wate (2006) Present status of floral diversity in Nagpur city, (MS). Proc. of National conference on emerging trends in medicinal plants & their biotechnological advances organized by dept. of Botany, Dr. Ambedkar college, Nagpur, (5-6th Jan, 2007) p. 159.
- 5. Sharda Dhadse, Shanta Satyanarayan, P.R. Chaudhari and S. R. Wate (2007) An ecofriendly and sustainable treatment of herbal pharmaceutical wastewater using earthworm (*Eudrilus eugeniae*), Proc. of int. conference on environmental impact and risk assessment organized by NEERI, Nagpur (25-26 Oct 2007) p. 73.
- Sharda Dhadse, Shanta Satyanarayan and P.R. Chaudhari (2007)
 Limnological study on Lonar lake: A unique brakish crater lake in India, 12th

- world lake conference-Taal 2007 organized by MoEF, Int. Lake environment Committee (ILEC), Indian Tourism Development Corporation (ITDC), Rajastan Govt. at Jaipur (28 Oct-02 Nov, 2007) p.71.
- 7. **Sharda Dhadse**, Shanta Satyanarayan, P.R. Chaudhari and S.R. Wate (2008) Bioremediation of Bulk Drug Wastewater Using Earthworms an Ecofriendly Technology, Int. Conference on recent trends in environmental impact assessment organized by NEERI, Nagpur (23-25 Nov 2008) p. 48.
- 8. **Sharda Dhadse**, P.R. Chaudhari, D.G. Gajghate, N.C. Kankal and S.R. Wate (2009) Interaction of urban vegetation cover to sequester air pollutants from ambient air environment of Nagpur city, India, Int. Symp. on Env. Pollution, Ecology and Human Health, org. by Dept. of Zoology, S.V. University, Tirupati, India (July 25-27, 2009) p.36
- Sharda Dhadse, N.C. Kankal and S.R. Wate (2009) Vegetation Diversity along the proposed crude oil pipeline route from Salaya to Bhogat, International conference on recent advances in Environmental Biotechnology organized by Birla college of Arts, Science and Commerce, Kalyan, India (14-15, Nov. 2009) p. 37
- 10. Sharda Dhadse, N.C. Kankal and S.R. Wate (2009) Assessment of electricity generation potential from biogas using cattle dung in remote areas of Nagpur, International conference on recent advances in Environmental Biotechnology organized by Birla college of Arts, Science and Commerce, Kalyan, India (14-15, Nov. 2009) p. 7
- 11. **Sharda Dhadse**, N.C. Kankal and S.R. Wate (2009) Study of soil quality in the crude oil pipeline route from Salaya to Bhogat in Gujrat, India, Int. Conf. on Recent Advances in Environment Protection org. by St. John College of Agra, India (17–19, Dec 2009) p. 28.
- 12. **Sharda Dhadse**, Shanta Satyanarayan, P.R. Chaudhari and S.R. Wate (2010) Toxicity evaluation of vermitreated effluents of herbal and bulk drug pharmaceutical wastewaters by algal bioassay. National Conference on Current Scenario on Global Challenges in Germplasm Conservation and Biodiversity organized by Department of Botany, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur on 7-8 July, 2010. p.53.
- 13. Sharda Dhadse, N.C. Kankal and S.R. Wate (2010) Advances in Conventional Power Generation Potential from Biogas: Its Efficiency and Utility, Int. Conf. on "Bioenergy from Wastes: Green Chemistry Interventions" org. by NEERI, Nagpur. Nov 25-26, 2010. p.33.
- 14. Sharda Dhadse, Shanta Satyanarayan, P.R. Chaudhari and S.R. Wate (2011) Toxicity Evaluation of Vermitreated Effluents of Herbal and Bulk Drug Pharmaceutical Industry by Fish Bioassay. Int. conf. on sustainable water resource management and treatment technologies, Water 2011, organized by NEERI Nagpur, 19-21 January 2011. p.109.
- 15. Sharda Dhadse, N.C. Kankal and S.R. Wate (2011) Assessment status of municipal solid waste management at Ahemedabad. National Conference on environmental innovations for resource sustainability, organized by School of

- Environmental and Earth Sciences, North Maharashtra University, Jalgaon, 21-22 January 2011 p.75.
- 16. N.C. Kankal, Sharda Dhadse, and S.R. Wate (2011) Environmental protection by conventional power generation from methane renewable source of energy. Nat. Conf. on environmental innovations for resource sustainability, org. by School of Environmental and Earth Sciences, North Maharashtra University, Jalgaon, 21-22 January 2011 p. 83.
- 17. **Sharda Dhadse**, S. Satyanarayan, N.C. Kankal and S.R. Wate (2012) Bacillus cereus and Bacillus thuringiensis: Role in methanogenesis, Int. conf. on recent developmental impact assessment and integrated approach for carbon management solutions, technology development and pollution abatement, org. by NEERI, 28-30 Mar, 2012 p.40
- 18. **Sharda Dhadse**, Shanta Satyanarayan and S.R. Wate (2012) Biogas enhancement by microbial and organic amendment, IInd World congress on man and nature held at Nagpur 2-5 Nov 2012.
- 19. Sharda Dhadse (2022) Role of biological Sciences in dealing Environmental Impact assessment projects. National Conference organized by Sindhu Mahavidyalaya Nagpur on 8-9 April 2022.

Conferences/ Workshop Attended participated

- 1. National seminar on "Water Security" at NEERI Nagpur, organized by Dr. Babasaheb Ambedkar College, NEERI, and Vanarai Nagpur. (Aug-2004)
- National seminar on "Advanced Materials" (NSAM-2004), organized by Kamla Nehru Mahavidyalaya, Nagpur, Luminescence society of India, and society for promotion of material science, Nagpur. (Sept-2004)
- 3. National conf. on fish toxicity organized by Ambedkar College, Nagpur (15-18, Jan-2006)
- 4. UGC Sponsored seminar on evaluation and conservation of water bodies in rural and urban area (27, Jan-2007), organized by dept. of Zoology, J.M. Patel College of Arts, Commerce & Science, Bhandara (MS)
- 5. Consultation workshop on rural entrepreneurship possibilities using bio-fuels and animal power on 23-25 Mar-2007, organized by Mahatma Gandhi Institute of Rural Industrialization (MGIRI), Wardha (MS)
- 6. International workshop on mitigating effects of geogenic contaminants (22-23, February 2012), organized by CSIR-NEERI, Nagpur.
- 7. Brainstorming session on predictive near subsurface geosciences: Integration of theory, data and models (29-30, October, 2013) organized by Ministry of Earth Sciences and CSIR-NEERI.
- 8. Two-day workshop organized by QCI/NABET on Quality Management System organized by NEERI Nagpur (3-4 Dec, 2015)
- 9. 3rd workshop held at MOEF & CC, New Delhi on 25.02.2016 on the carrying capacity studies of Odisha.

Trainings/ Workshop Organized

- ➤ 3 Trainings organized on Ecology and Biodiversity for EIA projects organized on 19-21 Feb 2020, 19-21 Jan 2021, 11-13 Jan Year 2022.
- Workshop on rapid vermicomposting at agricultural field of Nainpur village Tah. Desaiganj District Gadchiroli on March 15, 2020

➤ Training on Biological Monitoring Analysis and Testing (Microbiology, Bio-Assay and Bio-monitoring) SOPs, Data Interpretation and Quality Assurance" under National Hydrology Project on 28-29 Oct 2021.

Training on "Biological Monitoring and Bio-assay Studies for EC Conditions: Sampling, Analysis, Data Interpretation and Quality Assurance "October 11-12, 2022.

Trainings /Workshops attended

- Training program on Laboratory quality management system & international audit as per IS/ISO/IEC 17025:2005 by Shreyash quality management system, Nagpur on 9-12, July 2014
- Workshop on QCI/NABET on quality management system organized by Shreyas Quality Management Systems, Nagpur (3-4 Dec, 2015)
- Training on EIA process and procedure as per MoEFCC guidelines held at NIMSME, Hyderabad (22-25 Aug, 2016)
- Training on Uncertainty measurement held at CSIR-NEERI Nagpur (31, Aug--02 Sept, 2016)
- ➤ Training on Air water quality Index organized by CSIR-NEERI Nagpur (1-03 Feb, 2017)
- Training on Effective Communication and Presentation Skills at Centre for Organization Development Hyderabad, (20-25 Feb 2018)
- ➤ Training on Environmental leadership for Women Scientist organized by DST, at IIFN, Bhopal 11-15 Feb 2019
- Training on Patent and intellectual property rights organized by RIIPM, Nagpur Jan 11-19, 2020.
- Training on Agriculture and rural Technology organized by HRDG, Gaziabad on 1-5 Dec, 2020.
- ➤ Training Program on EIA by CSIR-NEERI (2020)
- Training Program on Traditional & Modern IPR Issues for Biodiversity Protection & Conservation & Animal Taxonomy by Zoological Survey of India ZSI & ICAR-IISWC, Dehradun (2019)
- Agro-vision by Dept. of Agriculture Nagpur (2020)
- Workshop meeting on lake rejuvenation by MAHAGENCO (2020)
- Workshop on bamboo plantation by Agricultural College, Nagpur (2020)
- Sustainable utilization of bamboo: Integration of environment, society and economy by CSIR-NEERI (2020)
- Training program on patent filing and processing by Rajiv Gandhi National Institute of Intellectual Property Management, Nagpur (2020)
- Training on "New Paradigm in Technology Transfer and Commercialization" July 8-10, 2019 by HRDG, Gaziabad, UN-ESCAP, APCTT at CSIR-HRDC, Ghaziabad
- Attended SEC Training Program on "Publication Ethics" October 11, 2021 Organized by CSIR-NEERI, Nagpur
- 27th Edition of AAJ Webinar Series @ JNU: "Current environment legislations & regulations w.r.t industry for sustainable & self-reliant India (SRI) held on 19th November, 2021

- ➤ SEC Training Programme On "Good Laboratory Practices (GLP)" (December 10, 2021) organized by CSIR-NEERI
- ➤ One Week National e-Workshop on Innovation & Intellectual Property Rights (New IPR-2021), June 14 19, 2021
- SEC Training Program on "Publication Ethics" October 11, 2021
- 27thEdition of AAJ Webinar Series @ JNU: "Current environment legislations & regulations w.r.t industry for sustainable & self-reliant India (SRI) held on 19th November, 2021.
- ➤ One-week National e-Workshop on Innovation & Intellectual Property Rights organized by InTEC and CSIR-IMMT Bhubaneshwar on 13-18, June 2022.
- ➤ Three days Training on carbon foot printing and carbon sequestration by Akon Services (29-31st August, 2022).

Membership

- Life member of Indian Science Congress, Kolkata
- Life member of Vigyan Bharti (VIBHA)
- ➤ Life member of Bamboo Society of India
- Life member of INTECOL International Association for Ecology
- Member of Global Forum for sustainable rural development
- Member of Editorial Board of Journal Plantea Scientia
- Member of Organization for Women in Science for the Developing World
- Role model for DST Vigyan Jyoti project for Jawahar Navodaya Vidyalaya
- Expert Member of Atal Tinkering Lab at Jawahar Navodaya Vidyalaya Nagpur
- Expert member of Science Innovation and Incubation center at Shivprasad Sadanand Jaiswal College, Arjuni Morgaon, Dist. Bhandara
- Member of Central India's Birders Network (CIBN)
- > Editorial board member for American Journal of Environmental Protection

Guided M.Sc. students for their dissertation work on the topic

- 1. Bio-accumulation of Heavy Metals by Earthworms used in Industrial Wastewater Treatment and its Effects on *Acid* and *Alkaline Phosphatase*
- 2. Microbial Characterization of Wastewater, Treated Leachates and Soil Used in the Vermi-reactor Used in Wastewater Treatment
- Characterization of Microbial Flora of Vermiwash and Its Effects on the Growth of Plant Species with Special Reference to Enhancement of Soil Microbial Count
- 4. Study of Fish Bioassay through Acute Heavy Metal Toxicity and its Effects on Liver Enzymes (*Acid Phosphatase* and *Alkaline Phosphatase*) of Fish
- 5. Biogas generation potential from the cattle dung: a case study of biogas plant near Saoner Dist. Nagpur
- 6. Vermistabilisation of Aquatic Weeds for the development of a novel vermicompost
- 7. Comparative metagenome analysis of sites enriched with Methanogens, Methanotrophs and Sulphur Reducing Bacteria
- 8. Study of contamination in agricultural soil near thermal power plant
- 9. Study of quality of water of lakes of Nagpur city

- Study of biomagnification of mercury in the food chain of aquatic ecosystem and experimental support of bioaccumulation in fishes and earthworm and its biochemical and molecular assay
 Study of cop residue degrading micro-organisms
 Bioaccumulation of mercury with translocation of food chain by vegetables, effects on seed germination, plant DNA chlorophyll content, micro-organism living in association and experimental investigations to study its uptake in plants
 Development of UV based sterilizing set for Covid 19 virus
 - 14. Assessment of microplastic toxicity on fish
 - 15. Assessment of pesticide toxicity on fish
 - 16. Assessment of pesticides toxicity on earthworms
- 17. Slope stabilization techniques with wastewater treatment by filtration
- 18. Assessment of heavy metal accumulation in hydroponics

Projects completed/ ongoing as a Project Leader

- Assessment of methyl mercury in an aquatic biota nearby thermal power plant (DST sponsored Project Feb 2017-2020)
- 2. Assessment of soil quality of the agricultural field near M/S. Welspun Captive Power Generation Ltd. Taluka Anjar. Dist Kutch Gujrat India (Dec-2019)
- 3. Rapid vermi-stabilization of unused agro-waste at the village of Gadchiroli District, MS India (Jan 2020) sponsored by CSIR-HARIT
- 4. Capacity building of professionals and individuals (FAEs, TMs, etc. working in EIA) by training program on Ecology and Biodiversity (Feb 2020)
- 5. Assessment of ecology and biodiversity around the region of Gevra Mine, Dist. Korba, Chhattisgarh sponsored by South Eastern Coalfields Ltd.
- 6. Bioassay test of Hasdeo and Ahiran river near Gevra Open Cast coal mine of South Eastern Coalfields limited, Gevra Area, Korba, Chhattisgarh, India
- 7. Assessment of the riverine ecosystem of Ahiran and Lilagarh rivers for the development of a conservation and management plan
- 8. Environmental impact assessment of Thakurani iron ore mine at Barbil Orisa (Feb-2022)
- 9. Green Auditing of Campus of Regional Institute of Education (RIE), National Council of Educational Research and Training (NCERT), Mysore

Contribution to the EIA Projects for Biodiversity studies

- Environmental Impact Assessment for Proposed Sethusamudram Ship Canal Project (Tuticorin Port Trust, TPT) (May 2004)
- Environmental Impact Assessment (EIA) for existing Reliance petrochemicals Ltd. at Hazira, Gujrat, June- 2003
- 3. EIA for existing nuclear power plant at Kakrapara, Gujrat, July-2003
- 4. EIA for proposed thermal power plant at Dadari, Uttar Pradesh, April-2004
- 5. EIA for existing Asian Paint at Chennai, Tamilnadu, Aug-2004
- 6. EIA for proposed Bauxite ore mines at Karlapat, Orrisa, Feb-2005
- EIA for proposed crude oil storage tank facility at Vishakhapattanam, AP, May-2005

- 8. EIA for proposed thermal power plant at Chabda, Rajasthan, Aug-2005
- EIA for proposed thermal power plant at Shahapur (near Mumbai), Mah., Oct-2005
- 10. EIA of proposed thermal power plant at Talegaon near Pune, Maharashtra, Dec-2005
- 11. EIA of proposed (2 X 500 MW) units of TPP at Bhusawal, Dist. Jalgaon, Mah. Feb-2006
- EIA for proposed seismic survey of Andaman Block ANDW 2003/3, April-2006
- 13. EIA for proposed seismic survey at Vadodara and Bharuch Gujrat, Oct-2006
- 14. REIA for proposed (1X500 MW) expansion of coal based thermal power project at Chandrapur, Dist. Chandrapur, Maharashtra 2006
- 15. EIA for exploratory drilling at Ahmedabad Kheda (Gujrat), May- 2007
- EIA of Proposed Underground Rock Cavern Facilities for Strategic Storage of Crude Oil at Paduru, Udupi Dist. (Karnataka), Indian Strategic Petroleum Reserves Ltd. (ISPRL), Oct-2007
- 17. EIA for offshore exploratory drilling at Nellore (Andhra Pradesh), May, 2010
- 18. EIA for proposed port at Tadadi, district Karwar at Karnatka, July-2010
- 19. EIA for Setting up 1 MTPA Pellet Plant with Upstream Sub-Grade Fines & Slime Beneficiation Facilities at Iron Ore Complex (IOC) Dalli-Rajhara, District-Balod, Chhattisgarh (India) May 2011
- 20. Environmental Impact Assessment for the Construction of Uma Barrage Across the River Uma near Village Borta in Tahsil Murtizapur, Dist. Akola, Maharashtra (March 2011) (Water Resources Department, Govt. of Maharashtra)
- 21. EIA for the Construction of Katepurna Barrage Across the River Katepurna near village Mangural kambe in Tahsil Murtizapur, dist. Akola, Maharashtra (Irrigation Department) (November 2014)
- 22. Environmental Impact Assessment for Iron Ore Mining Activity at Sukri-Luturburu Leasehold of Manhoharpur Ore Mines (SAIL), West Singbhum District, Jharkhand, (Manoharpur Ore Mines (Chiria) Steel Authority of India Limited),
- 23. EIA for proposed grass-root refinery of HPCL at Balotra, Rajastan .2013
- 24. Monitoring and assessment of environmental pollution status at M/s. Nitta Gelatin India Ltd. Kathikudam, Dist Trichur, Kerala Jan-2014
- 25. Comprehensive environmental impact assessment for the proposed coal based captive co-generation power plant of capacity 360 MW and coal jetty at Hazira manufacturing division, Gui. Feb-2014
- 26. EIRA for the proposed excel solvent spun cellulosic fibre (109500 TPA) along with CPP at Kharach, Dist Bharuch, Guj.April-2014
- 27. Study and assessment of cumulative impact of large number of power plants and coal mines etc. located in a small area and suggested

- appropriate measures to mitigate the identified impacts (Mahan Coal Ltd.) May-2014
- 28. Expansion of breakwater in proposed port at village Chhara-Sarkhadi, dist. Gir Somnath, Gujrat June-2014
- Carrying capacity study for environmentally sustainable iron ore mining activity Keonjhar, Mayurbhanj & Sundergarh districts of Orissa state July-2014
- 30. Environmental impact assessment of proposed Wardha diversion medium level Pandri irrigation project on River Wardha Pimpalgaon, Taluka Warud, Dist. Amravati, Maharashtra state Aug-2014
- 31. EIA for Uma barrage village Rohana, Tal. Murtizapur Dist. Akola (15 Dec 2015, SEAC Meeting)
- 32. Environmental impact assessment of proposed Wardha diversion medium level Pandri irrigation project on River Wardha Pimpalgaon, Taluka Warud, Dist. Amravati, Maharashtra state (15-03-2016 Public hearing)
- 33. Environmental impact and risk assessment of Manglore refinary and petrochemicals Ltd. (Oct 2016)
- 34. Carrying capacity-based planning for proposed development of Sambalpur-Jharsuguda Region, Orissa
- 35. Comprehensive EIRA Study for Proposed Port Phase II, Extension of Breakwater at Chhara Village in Kodinar Taluka, Gir Somnath Dist. of Gujarat (SIMAR Port Pvt. Ltd.)
- 36. Preparation of Environmental Sustainability Report for Four VSF Units of M/s Grasim Industries at Nagda, Harihar Kharach and Vilayat (Grasim)
- 37. Grid Analysis study for Environmental Impacts of MRPL Phase III units operation on Air, Ground water and Noise Quality in surrounding villages (MRPL)
- 38. EIRA study for BS-VI autofuel quality compliance and associated project facilities at Manglore refinery and petrochemicals Ltd (MRPL), Manglore Jan 2017
- 39. EIA studies for establishment of CETPs and selection of marine outfall location for discharge of Treated effluent from proposed CETPs at Bheemavaram, Andhra Pradesh (June 2017)
- Assessment of bearing capacity and sustainability around Nainital, bhimtal, Khurpatal, Naukuchiyatal and Sattal lakes in Nainital District of Uttarakhand State.2018
- 41. Pollution status assessment of Yanamadurru drain and feasibility study for establishment of common effluent treatment plant for industrial cluster to meet statutory norms for marine discharge (May-2017)
- 42. Environmental Impact Assessment (EIA) Study for Proposed Multi- Product Special Economic Zone (SEZ)/Industrial Park at Sausar Tehsil, Chhindwara, Madhya Pradesh (Oct-2017)

- 43. Development of bamboo diversity for dust suppression using ERT at Koradi (Sponsored by Maharashtra State Power Generation Co. Ltd. (MSPGCL) 2018-2020
- 44. Development of Bamboo through ERT on degraded land at Gothangaon using *Eichhornia crassipes* (Water Hyacinth) as mulching (Irrigation Department)
- 45. Environmental status report of Nagpur 2018-20 (Sponsored by NMC)
- 46. Strategically designed greenbelt development along highways and its performance evaluation towards eco-capital build up.
- 47. Development of Smart Industrial Port City (SIPC) and Mechanization of existing operational Berth at Paradip Port, Odisha.
- 48. Preparation of Environmental Sustainability Report for Four VSF Units of m/s Grasim Industries at Nagda, Harihar, Kharach and Vilayat.
- 49. Terrestrial EIA Study for Expansion of 2X800 MW (Phase II) Udupi Thermal Power Project, Yelluru, Dist. Udupi, Karnataka
- 50. Environmental Impact and risk assessment for the proposed excel solvent spun cellulosic fiber (109500TPA) along with CPP at Kharach, Dist. Bharuch, Gujarat.
- 51. Environmental Baseline studies for the Proposed Development operations in the CBM block Sohagpur West, Dist. Sohagpur.
- 52. Green belt development on the periphery of Gosekhurd Dam.
- 53. Development of Green Belt of Bamboo diversity for dust suppression using Rejuvenation Eco-nation Technology at MAHAGENCO Land Area.
- 54. Environmental Damage Cost Assessment due to spillage of ash at Sasan Power Limited, Madhya Pradesh
- 55. Preparation of a detailed project report of the construction, monitoring and assessment of the containment system for mine backfilling with red mud at Utkal Alumina International Limited (UAIL), Hindalco Plant
- 56. Environmental impact and risk assessment study for Greenfield Chemical Complex of GHCL Ltd. At Village Bada, taluka Madavi, District Kutch, Gujrat.

Voluntary Activities

- https://globalconscience.world/thanks/
- https://people4planet.wwfindia.org/login.php
- https://www.greenpeace.org/india/en/explore/
- https://www.onlinevolunteering.org/en/sign-up/become-volunteer/start