

Dr. Rupali Dilip Gaikwad, M.Phil,Ph.D.

Present position

- Assistant Professor and Head of the Department

Contact Details (Mention e-mail) – fergusson.edu or despune.org



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Work Experience

- Teaching: 20 years
- Research/Industrial: 15 years

Personal Profile

I did my B.Sc in Microbiology(2000), M.Sc (2002) and M.Phil.(2005) in Environmental Science, from Shivaji University Kolhapur and Ph.D (2020) at Savitribai Phule Pune University, Pune. I have started my teaching carrier in the year 2003 in the Department of Environmental Science at Shivaji University, Kolhapur. In the year 2005 I worked as lecturer at Yashwantrao Chavan Institute of Science. Then I shifted to Pune in the year 2007and worked as lecturer at Sent Mira's College for six months. I joined Fergusson College in September 2007 as assistant professor. In 2009 I got an additional responsibility to work as a Head of the Department of Environmental Science. Since 2007 I am teaching to UG and PG classes till date and working as member and in charge for various college committees. I have completed a BCUD minor research project during 2012-2014. Also completed various projects and guided the students for research under CPE, CE and DBT scheme. I am creating awareness about various environmental aspects in various schools, colleges and society using various online platforms, offline sessions, All India Radio Talks, articles in news papers and magazines etc.

Course(s) Taught (Only Titles)

1. Environmental chemistry
2. Water and water resources
3. Natural resource management and sustainability
4. Land and soil conservation and management
5. Environmental Biotechnology
6. Environmental Toxicology
7. Water and wastewater treatment technologies
8. Design and Development of Eco-friendly products
9. Green technologies and green credits

Field of Specialization/Areas of Interests

- Environmental monitoring
- Water and wastewater treatment
- Environmental pollution and waste management
- Application of microbiology and biotechnology for remediation and restoration
- Aquatic ecosystem studies
- Green credits
- Ecofriendly product design and development
- Toxicology, health and safety
- Environmental chemistry and green chemistry
- Greywater treatment

Education

- **Ph.D.** – (Environmental Science)
- **Title of the Thesis:**

“Studies on the Effluent of Laundry: Treatment, Toxicity and its Fate in the Environment”

Name of University: Savitribai Phule Pune University, Pune

Institution (Research Centre): Department of Environmental Science, Savitribai Phule Pune University, Pune

Year of Award: January 2020

- M.Phil:
(Environmental Science): 2005, Shivaji University Kolhapur.
- Master of Science- (Environmental Science): 2002, Shivaji University Kolhapur.
- Bachelor of Science- (Microbiology): 2000, Yashwantrao Chavan Institute of Science, Satara affiliated to Shivaji University Kolhapur

Fellowship/Awards/ Certifications/Achievements/Recognitions

- Received “**Paryavaran Doot**” Award for year 2022 under Mazi Vasundhara Abhiyan, Maharashtra State.
- Qualified State Level Eligibility Test for Lectureship (SET)
- Completed a training program of the Climate Reality leadership Corps in October 2021. Now eligible to work as **Climate leader**.

Member of College Committees/ Professional Bodies and Others

College Level	Professional Bodies	Others
• In- charge Central Admission Committee (S.Y. B.Sc)	• Chairman : Board of studies of Department	Member of “Shakti” A National Movement for Women, Pune
• In-charge : NAAC criteria 7		

In-charge for Climate Reality project activities	of Environmental Science, Fergusson College, Pune - BOS member (V C nominee) on Board of Studies in Botany, Environmental Science, Zoology and Physical Education for Abeda Inamdar Senior College of Arts, Science & Commerce, (Autonomous)Pune - Appointed as a BOS member (V C nominee) on Board of Studies in Environmental Science for T. C. College Baramati	
Coordinator for Green Campus committee	Member BOS-subcommittee Savitribai Phule Pune University	Member of Indian Meterology Society, Pune region
Coordinator for Fergusson River Club	BOS member (V C nominee) on Board of Studies in Environmental Science for T.C. College, Baramati.	Member of Solid Waste Management and Solid Waste Third Party Audit committee PMC, Pune

Employment History

1) Organization : Department of Environmental Science, Shivaji University Kolhapur

Role : lecturer

Duration : 2003 to 2005

Responsibilities	- Conduct lectures and Practical's of PG students - Guidance for Dissertation work of PG students - Study tours and Field visits - Awareness campaign's
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2) Organization : Yashwantrao Chavan Institute of Science, Satara

Role : Lecturer

Duration : 2005 to 2006

Responsibilities	Conduct lectures of Environmental Awareness course at SY BSc.
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	Guidance and Evaluation of Project
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3) Organization : St. Mira's School and College, Pune

Role : Lecturer

Duration : 2005 to 2006

Responsibilities	Conduct lectures of Environmental Awareness course
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4) Organization : Fergusson College, Pune

Role : Assistant Prof. and Head

Duration : 2007 to till date

Responsibilities	- Administrative work of the department - Conduct lectures and practical's at UG and PG level - Guidance and Evaluation of Project - Arranging field visits - Organization of Guest lectures, Seminar, Workshops, Conference and training programs, awareness and cleanliness drives for Students and Faculty member based on Environmental Aspects - Admission In-charge for S.Y. BSc. Non-grant units - In-charge for green campus committee of college - In-charge for NAAC Criteria 7 - Chairman for BOS in Environmental Science under autonomy
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Research Projects

1. Funding By External Agencies

Title of the Project	Name of Funding Agency	Amount (Rs)	Duration (Year) (From To)	Type (Minor/Major)	Outcome
Studies on the Hydrological, Environmental and Social aspects of the Cave Temple of Bhamburda (Pataleshwar), Pune.	1.AICTE, Ministry of Education, 2. Ministry of Housing and Urban Affairs, 3. Ministry of Culture 4.Government of India	2,00,000/-	3 months		1.Got an opportunity to work with government agencies under the scheme Mission Amrit Sarovar 1.Interdisciplinary studies have been conducted. 2.Fifteen students were enrolled in this activity from Environmental Science and Geology Department. 3.Documentation of hydrological and geological studies of the area 4.Documentation of Flora and Fauna. 5. Record of Social and heritage aspects of study area. 6. Created Awareness about the water resource
Studies on the	BCUD	1,90,000/-	2012 -2014	Minor	1.Characterization of Laundry

Effluent of Laundry Units: Treatment, Toxicity and It's Fate in Environment"					wastewater from various units from Pune area was carried out. 2. Microbes degrading surfactants were isolated. 3. Toxicity and wastewater treatment studies were conducted and recommendation are given for mitigation of problems arising due to laundry wastewater.
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2. Funding From College

Title of the Project	Name of Funding Agency/ Scheme	Duration (Year) (From To)
Development of WebApp for Assessment of Status and Improvement Opportunities for Net Zero Campus	Seed Money Project	On going
Characterization and Treatment of Wastewater from Automobile Service Station	College with Potential for Excellence' (CPE)	2014-15
Characterization and Treatment of Laundry Wastewater by Using Coagulants and Biosorbents	College with Potential for Excellence' (CPE)	2011-12
Environmental Status of Pashan lake, Pune, India (18-19)	DBT STAR	2018-19
Development and Application of Microcontroller Based System for Detection of Water Pollution by Phosphates	DBT STAR	2017-18
Wastewater Treatment for Removal of Phosphates	DBT STAR	2016-17

Research Publications in National and International Journals

1. Gaikwad, R.D., Todankar, S.S. and Aphale, P.V. (2021) Studies on The Environmental Status of Pashan Lake Pune, Maharashtra, India, 2nd International Conference on Biodiversity and Environmental Management (BEM 2021).
2. R.D. Gaikwad, D.S. Kumbhar, Dr. K.M. Kodam, Dr. P.R.Thakur (March 2018) Development of Portable Optical Sensor Based System for Detection of Phosphate in Wastewater, International

3. Gaikwad R.D., Kalumbe A., Kodam K., Thakur P. (2014). Isolation, identification and characterization of anionic surfactant degraders from detergents in laundry wastewater”, proceeding of conference “Modern Analytical Techniques in Microbiology” organized by department of Microbiology, Fergusson College, Pune.
4. Bhosale R.A. (2003), Effect of Biofertilizers on Growth of Cicer arietinum, proceedings of national conference entitled “Recent Advances In Plant Microbial and Environmental Biotechnology” organized by C. T. Bora college, Shirur, Dist. Pune.

Participation in Conferences/Seminars/Symposia/Workshop:

1. General **Orientation Course** (2009) organized by UGC-ASC, University of Pune, Pune
2. **Refresher course** (7.03.2012 to 27.03.2012) in Environmental Science organized by Department of Environment Science, University of Pune, and UGC-ASC University of Pune, Pune 411007
3. Workshop on “Basic Life Support” organised by Ruby Hall Clinic, Pune, in Feb. 2008
4. Participated in One Day Teachers training Workshop on “Global Warming Awareness” organised by Department of Business Environment, MMCC, and Pune, in Sept. 2008
5. Syllabus Reframing Workshop for S.Y. B.Sc. Environmental Science. Organised by Abeda Inamdar college, in 2009.
6. Workshop on “Computer Assisted Instruction with Reference to Computer Assisted Language Learning” Sponsored by University of Pune in 2010
7. Workshop on “Capacity building” organised by Fergusson College in 2010.
8. “Entrepreneurship development through Phytoremediation” paper presented and published in the proceeding of the conference held in 2010, entitled “We Meet” organised by Shakti Association and College of Engineering, Pune.
9. “Traffic Noise Quality Monitoring at selected areas from Fergusson College Road” paper presented and published in the proceeding of the conference held in 2010, entitled “We Meet” organised by Shakti Association and College of Engineering, Pune.
10. **Three weeks Faculty Development Program (FDP)** in Geoinformatics” conducted by C-DAC, Pune during 04 to 23 June 2012.
11. **One week** training program on “Radiochemistry and applications of Radioisotopes” during 19-25 November, 2012
12. **One week FDP** on “Teaching and research process in science education” organised by H. V. Desai College, Pune and Pune University from 4th to 11th April 2016.
13. Evaluation of an alternative milk delivery to reduce the plastic waste generated out of plastic pouches - Automatic Milk Vending Machine. Rajas Shinde, Prachi Pande, Gurudas Nulkar, Rupali Gaikwad. Pune: Bhartiya Vigyan Sammelan, 2017.
14. **Two weeks Faculty Development Programme (FDP)** in Entrepreneurship (9 to 20 December 2019) sponsored by NSTEDB, Dept. of Science and Technology, Govt. of India
15. **One week** National Online level Faculty Development Program (FDP) on “ICT Tools for Effective Teaching Learning from 11th to 16th May 2020, organised by School of Mathematical Sciences, Swami Ramanand Teerth Marathwada University, Nanded.

16. Two days National level Faculty Development Program on “Facilitation Techniques and Online Tools for College Teachers, organised by S.M. Joshi College, Pune on 27th and 28th May 2020
17. **One week** online Multi- Disciplinary Faculty Development Programme (**FDP**) with A Grade on “MOOCs, E-Content Development and OER from 28th May to 3rd June 2020 organised by Government of Karnataka, Department of Collegiate Education.
18. Two Days Faculty Development Program on online Teaching and E-content “ on 3rd and 4th June 2020 organised by Indian Institute of Digital Education (IIDE) , D. Y. Patil College of Engineering and Technology and St. Xaviers College, Mumbai.
19. A Hands-On Workshop on “The Bodhi Tree and SAFE Tools for Effective Online Teaching on 21 June 2020 and attended interaction session and completed pre and post video workshop online activities organised by **IIT Bombay**, funded by MHRD, Govt. of India.
20. **Three weeks** online course on “Remote Sensing and GIS Technology and Applications for University Teachers and Government Officials” conducted by Indian Institute of Remote Sensing (**IIRS**) , **ISRO, Dehradun**, During 13th June 2020 to 1st July 2020.
21. Presented paper in the international e-Conference on “Emerging Methodologies in Pharma, Environmental and Life Sciences” organised by Ismail Yusuf College of Arts, Science & Commerce Jogeshwari East, Mumbai held on 18th and 19th June, 2020.
22. **One week** Pedagogical Online Training for teachers on Tools for online Teaching Learning and Evaluation from 1st to 6th July 2020, organised by School of Mathematical Sciences, Swami Ramanand Teerth Marathwada University, Nanded.
23. **One Week** Faculty Development Programme (**FDP**) on "Module on Curriculum Design and Pedagogy for Autonomous Colleges in Maharashtra" Organized by S.P. Sanstha's, Sangamner Nagarpalika Arts, D. J. Malpani Commerce and B. N. Sarda Science College (Autonomous), Sangamner, Maharashtra in collaboration with Rashtriya Uchchatar Shiksha Abhiyan (RUSA), Maharashtra and Center of Excellence in Teacher Education, TISS, Mumbai from 22 to 27 February 2021.
24. **Two weeks online** training on ‘Water Audit and Conservation in Industries’ organised by centre for science and environment, New Delhi from 19th July 2021 to 1st August 2021.
25. Completed a training program of the Climate Reality leadership Corps in October 2021. Now got a opportunity to work as **Climate leader**.
26. Completed two-week Interdisciplinary Refresher Course on "Advanced Research Methodology" from 22 March - 05 April, 2022 organised under the Ministry of Education sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) scheme organised by TLC Ramanujan College.
27. Participated in a five days workshop on Operation and maintenance of Opto Analytical Laboratory Instruments from 3rd to 7th January 2023.
28. Participation in Corporate training program TechCamp Pune on the theme “Re-Designing Sustainable Urban Waste Management “ by U.S. Consulate Mumbai, in partnership with the Symbiosis Centre for Waste Resource Management, Symbiosis International (Deemed University), Pune, ExploreiT and Climate Projects foundation from 24-27 Sept 2024.
29. Satellite in Your hand: A training for Women was organised by Rambhau Mhalagi Prabodhini and Baya Karve Maharshi Karve Institute from 23-24 December 2024.
30. Participated in Faculty Development Program “Smart cities and Sustainable Mobilities”, Organised by DY Patil International University, Pune from 23-27 December 2024.
31. Participated in Sagar Mahotsav Based on Research and Field visits for Ocean Studies Organised by Aasamant Benevolence Foundation in Ratnagiri from 9th to 12th Feb 2024.

32. Attended the Faculty Development Program “Environmental Audit: A tool for sustainable organization”; Organised by Centre for Environmental Research and Technology & Pacific school of Engineering, Surat from 3-8 February 2025
33. Participated in National Seminar (SPSEED-2025) organized by ISHRAE Pune Chapter at Suzlon One Earth, Hadapsar, Pune

Events Organized/Coordinated:

Sr. No	Name of the Event	Name of organizing Institute/ College/ University	Nature of contribution	Dates
1				
2	Eco-friendly Skincare Product Development	Ark By Shivani	Organizer	5 th March 2025
3	Skills Required in Environmental Consultancy Services	Element Consultancy Services	Organizer	6th March 2025
4	Sewage Treatment Plant Visits	Pune Municipal Corporation	Teacher Co-ordinator	24 Feb 2025
5	Role of Youth in Sustainable Development	Akashwani Pune,	Organizer	13 th Jan 2025
6	Sagar Mahotsav	Aasamant Foundation, Ratnagiri	Teacher Co-ordinator	8 th to 12 th Jan 2025
7	GAIA 2025	Environmental Science Department	Organizer	December 2024

8	Guest Lecture by Dr. Aanand Sharma, President Indian Meteorological Society Topic: Indian Monsoon and Disaster Management: Enhancing Disaster Preparedness	Indian Meteorological Society	Organizer	19 th Oct 2024
9	Interactive session with Ms. Megha Budruk 'Preserving Protected Areas for a More Sustainable World'	Arizona State University	Organizer	7th October 2024
10	National Youth Climate Conclave	Centre for Sustainable Development and Green Skill Academy, Bangalore	Teacher Co-ordinator	26th Nov 2024
11	River Club Orientation Program 'Pravahrambh'	Vanarai, Pune	Coordinator	5 th Aug 2024
12	Workshop for "Bamboo Producer and Industrialist Farmers"	Indian Bamboo Forum (IBF), College of Agriculture, Pune, Maharashtra Vrukshasamvardini, Deccan Education Society	Member organizing committee	2nd Feb 2024
13	Production of clean energy and Green Carbon	Sharada Shakti -Vigyan Katta, Gangotri, Pune	Coordinator	12 th Feb 2024
14	Training Program 'Peoples Biodiversity Register' (PBR)	Srusti Conservation Foundation and Raintree	Teacher Coordinator	1 st to 15 th Jan 2024

15	Workshop on “Design and Development of eco-friendly products”	Ark by Shivani,	Coordinator	2 nd jan and 4 th March 2024
16	Workshop on Hydroponics	SP consultant , Belgaum	Coordinator	14 th oct 2023
17	Training program on ‘Mirrors for Earth's Energy Rebalancing, (MEER) By Dr. Ye Tao	MEER, Canada	Coordinator	18 th to 23 rd Sept.2023
18	Orientation Program’ Pravaharambh	Jal birabari and Devarai, Pune	Teacher Coordinator	5 th Aug. 2023
19	World Environment Day 2022	Department Activity	Organizer	5 th June 2022
20	Workshop on sustainable and Eco-friendly products	Ark by Shivani	Coordinator	6 th May 2022
21	Nadi ki Pathshala Training Program	Vanarai, Jal Biradari, College of Agriculture, Pune, College of Agriculture Rahuri and Yashada, Pune,	Coordinator	28th March 2022
22	Interaction with Alumni Tracking illegal wildlife crime		Coordinator	15th Dec 2021.
23	International Conference on Biodiversity and Environment Management	Centre for Sustainability, Department of Forestry and Environmental Science, University of Jayewardenepura, Sri Lanka and Deccan Education Society’s Fergusson College (Autonomous) Pune,	Coordinator	12 and 13 November 2021

24	Metal bottle for my friend	Department Activity	Organizer	29th Oct 2021
25	Ban on Single use Plastic	Green Terre Foundation	Organizer	11 th Oct 2021
26	Big Butterfly Month	Citizen Science Program	Coordinator	September 2021
27	Spider Week	Department Activity	Coordinator	14th to 22nd August 2021
28	Interaction with Alumni: Meet a friend	Department Activity	Coordinator	17th July 2021
29	Moth Week	College Activity	Coordinator	24th July 2021
30	Environmental Sustainability and Resilience in the context of Sustainable Development Goals	Sharada Shakti	Coordinator	25th March 2021.
31	World Meteorological Day	IITM, Pune	Participation	23rd march 2021
32	Pune City Air Action Plan	Pune Municipal Corporation	Coordinator	9 th march 2021.
33	Interaction with Alumni : fellowship opportunities in the Environmental field	BAIF	Organizer	19th Feb 2021

34	Session on wetland day	Department activity	Organizer	3rd February 2021
35	Session on Hydroponics	Department activity	Coordinator	11th Feb 2021
36	Session on 'Biodiversity of India'	College activity	Coordinator	5th October 2020
37	Study Visit to Uttarakhand	Department activity	Coordinator	Jan 2019
38	Green Campus Initiatives	Climate Reality Project, India	Organizer	14 th Dec 2019
39	Conservation dynamics in Central India Tiger Reserves	Madhya Pradesh Forest Department	Coordinated the activity	7 th Dec 2019
40	Plastic free campus Awareness Program	Terre Policy Centre	Organizer	2 nd Aug 2019
41	Master's Training Program on Green Campus	Deccan Education Society and Climate Reality Project	Coordinator	25 th and 26 th September 2019
42	Life Cycle Assessment and Ecological Footprint	Sharada Shakti, a session at the individual level.	Organizer	2/8/2019
43	Western Ghats and its Ecosystem		Coordinator	16/9/2019

44	Maharashtra Star rating program	Maharashtra Pollution Control Board	Coordinator	18/7/2019
45	Principal's Conclave : Green Schools of the Future	The Climate Reality Project	Coordinator	6th July 2019

- Conducted Many awareness programs on the theme of Single Use Plastic Ban, Water conservation and Sustainable Living.

Course Content Developed (e-content)

Book chapters written for Environmental Awareness course.

Consultancy Services

- Water and wastewater analysis
- Compost Analysis
- Toxicological Studies
- Environmental Monitoring
- Bioremediation