

DR. PRANAY DILIP ABHANG

D.Sc.-Honorary (Environmental Biotechnology), Ph.D. (Environmental Science)
M.Sc. (Biotechnology), M.Sc. (Environmental Science),
MBA (Environment Management), and B.Sc. (Biotechnology), GATE, NET



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Krishna Institute of Allied Sciences

Krishna Vishwa Vidyapeeth,
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**Dnyanganga Soc., Flat No. 9,
Sr. No. 686, 2A/2B, Swami
Vivekananda Road,
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Contact Number

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References

- (1) Dr. Girish R. Pathade**
Dean, Krishna Institute of Allied Sciences,
KIMSDU, Karad
- (2) Dr. Rajashree Patwardhan**
Professor, H. V. Desai College
- (3) Dr. Smita Zinjarde**
Director, IBB, SPPU
- (4) Dr. Pramod Moghe**
Rtd. Scientist, NCL
- (5) Dr. Arvind Deshmukh**
President, Microbiologist Society of India
- (6) Dr. Ravindrasinh Pardeshi**
Principal, Fergusson College
- (7) Dr. Ranjit Patil**
Principal, Dr. D. Y. Patil ACS College, Pimpri

Present Designation:

Assistant Professor of Environmental Sciences at Krishna Institute of Allied Sciences of Krishna Vishwa Vidyapeeth, Deemed To Be University, Karad 415539, Dist. Satara, Maharashtra, India

Experience:

Total **9 years** of teaching experience at the Department of Environmental Science, Dr. D.Y. Patil Unitech Society's Dr. D.Y. Patil Arts, Commerce & Science College, Pimpri, Pune-411018, as **Assistant Professor and Head**; at the Department of Environmental Science, P.G.K.M's Haribhai V. Desai College (Arts, Science and Commerce), Pune 411002 as **Coordinator and Assistant Professor** and at the Institute of bioinformatics and Biotechnology, Savitribai Phule Pune University, Pune 411007 as **Teaching Associate/ Assistant Professor (Contractual)**.

Key Areas:

Environmental Science, Environmental Biotechnology, Environmental Microbiology, Animal and Plant Tissue Culture, Molecular Biology, Ancient Indian Knowledge

Membership:

- PhD Guide/Supervisor at **KIAS, KVV DU, Karad & JJTU, Rajasthan**
- Regional Coordinator for **IIRS-ISRO** Outreach Programs
- **Member of the expert committee**, Ability Enhancement Compulsory Course (AECC) for Environmental Science/Studies on University Grants Commission, Ministry of Human Recourse Development, GoI, New Delhi
- Invited as **Academic Advisory Committee Member** for water pollution division of Central Pollution Control Board, Delhi
- **Editorial Board Member** SCIREA Journal of Environment
- **Reviewer** on TRANSSTELLAR Journal Publications and Research Consultancy
- **Member** of Pune Inter College Consortium (PICC)

Research Experience:

- Published **2 Indian patents**, **1 book** and more than **15 research papers** in various national and international peer reviewed journals
- **Oral/Paper presentation** in more than **20** national/international workshops, seminars, webinars and conferences
- Guiding **4 Ph.D.** students
- Guided **34 M.Sc.** students

Workshop and Conferences:

- **Organized 6** state/national/international level workshops and conferences
- **Actively participated** in more than **15** national/international workshops, seminars, webinars and conferences
- Participated in **3 FDP** (faculty development programs)

Technical Skills:

- **Environmental resources monitoring** – Air, water, soil, etc. monitoring
- **Instruments handling** – Sequencer, PCR, HPLC, GC, Microscopes, Centrifuge, Lyophilizer, Air Sampler, etc. and other common laboratory equipments
- **Tissue culture techniques** – Maintaining and working with different types of animal cell lines, plant organ culturing, etc.
- **Molecular biology techniques** – DNA isolation, SDS-PAGE, Competence and Transformation of cells, PCR, AGE
- **Microbial techniques** – Cultivation of different algae, fungi and bacteria, culture preservation, characterization of microbes
- **Computational skills** – MS office, CorelDraw graphics, video making, internet
Completed **MS-CIT** course

Award:

8 international awards, **5** national awards, **7** appreciation awards in Environmental Sciences and Biotechnology

Miscellaneous:

- Syllabus restructuring member at Savitribai Phule Pune University
- Paper Setter and Paper Checker (CAP) at Savitribai Phule Pune University and Bharati Veedyapith, Pune
- Certificate course in **Indian knowledge system; Naturopathy**
- Online certificate courses in **Exploring Conservation** series under National Geographic Society and United for Wildlife

Dr. Pranay Dilip Abhang



Contact information –

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- Contact No. +91 9763370545
- Email ID - pranayabhang@yahoo.co.in
- Website - <http://pranayabhang.wix.com/pranayabhang>

Personal information -

- Nationality - Indian
- Gender - Male
- Date of birth - 19/07/1991
- Marital Status – Married
- Languages known – Marathi, English, Hindi, Sanskrit

Academic details –

Sr. No	Examination	Name of School/College	Board/ University	Year of passing	Percent age
1.	Ph.D. Environmental Science	Fergusson College, Pune	Savitribai Phule Pune University, Pune	April-2021	-
2.	M.Sc. Biotechnology	Fergusson College, Pune	Pune University	April-2014	68.90%
3.	M.Sc. Environmental Science (External)	Indira Gandhi National Open University	Indira Gandhi National Open University	December -2019	55.60%
4.	M.B.A. Environment Management (External)	The Global Open University	The Global Open University	September -2021	60.20%
3.	B.Sc. Biotechnology	Fergusson College, Pune	Pune University	April-2012	64.72%
4.	HSC	Fergusson College, Pune	Maharashtra Board	February-2009	63.50%
5.	SSC	N. M. V. boys high school, Pune	Maharashtra Board	March-2007	86.15%

D.Sc. (2021) – Honorary degree awarded by the University of Sheffield, United Kingdom in the field of Environmental Biotechnology

NET (2015) – CBSE UGC NET in Environmental Science

GATE (2014) – GATE Score – 320, GATE Percentile - 80.72

Diploma and Certificate courses –

- **MS-CIT** course in July-2007
- Certificate course in **Indian Knowledge System** under Multi-university and PVSS
- Online certificate courses under National Geographic Society and United for Wildlife
 - **Introduction to Conservation**
 - **Prioritizing Species and Spaces**
 - **Understanding Illegal Wildlife Trade**
 - **Ocean Challenges and Solutions**
 - **Conservation Project Planning**
 - **Scientific Expedition of Conservation**
- Certificate course in **Naturopathy** under nature cure institute of Nasik
- National Natural Resources Management System - Indian Institute of Remote Sensing (NNRMS-ISRO) Sponsored Certificate Course in **Geospatial Technologies (RS, GIS, GNSS) and Applications** organized by the Indian Institute of Remote Sensing

Work Experience –

- Currently working as **Assistant Professor of Environmental Sciences** (from August 2022) in the Krishna Institute of Allied Sciences of Krishna Vishwa Vidyapeeth, Deemed To Be University, Karad 415539, Dist. Satara, Maharashtra, India
 - Responsibilities:
 - PhD Guide in Allied Sciences – Registered 4 PhD Students
 - Coordination, teaching (For B.Sc. & M.Sc. Biotechnology, B.Sc. & M.Sc. Environmental Sciences, B.Sc. & M.Sc. Microbiology) and administration work of Allied Sciences department

- In-charge of Criterion I for NAAC
 - In-charge of various committees viz., syllabus restructuring, planning and development, student council and students welfare, research coordination, etc.

- Worked as **Assistant Professor** and **Head** of the Environmental Science Department 1½ years (from February 2021 to August 2022) in Dr. D.Y. Patil Unitech Society's Dr. D.Y. Patil Arts, Commerce & Science College, Pune 411018, (Maharashtra) India.
 - Responsibilities:
 - Coordination, teaching (Environmental Biology; Environmental Chemistry & Physics; Earth, Ocean & Atmospheric Sciences; Environmental Statistics; Water, Air, Noise & Soil Pollution; Water & Wastewater Technology; Practicals) and administration work of Environmental Science department
 - Coordination and Teaching of AECC-Environmental Studies course
 - Coordination of Innovation and Incubation Cell and Career Katta

- Worked as **Assistant Professor** and **Coordinator** of Environmental Science Department for 3½ years (from September 2017 to January 2021) in the P.G.K.M's Haribhai V. Desai College (Arts, Science and Commerce), Pune.
 - Responsibilities:
 - Coordination, teaching (Environmental Biology; Environmental Chemistry & Physics; Environmental Statistics; Water, Air, Noise & Soil Pollution; Water & Wastewater Technology; Practicals) and administration work of EVS department
 - Coordination of Environmental Studies for all SY (UG) courses
 - In-charge of EVS and Environment related program committee (NAAC criterion VII)
 - Member of Student Welfare, Academic Research, NSS committees

- Worked as a **Teaching Associate/ Assistant Professor (contractual)** for 3 academic years (2014-15 to 2016-17) in the Institute of Bioinformatics and Biotechnology (IBB), Savitribai Phule Pune University, Pune.
 - Responsibilities:
 - Teaching (Animal & Plant Tissue Culture and Animal & Plant Biotechnology, Practicals) and administration (Store and Finance related work)
 - In-charge for Plant and Animal Tissue Culture laboratory
 - In-charge for Central Instrumentation Facility

- Responsibilities at other Universities/Colleges:
 - Ph.D. Guide/ Co-Guide/ Supervisor at JJTU - Shri Jagdishprasad Jhabarwal Tiberval University, Rajasthan
 - BOS member for Biotechnology at MES's Nowrosjee Wadia College, Pune
 - Practical Examiner, Paper Setter & Checker (CAP) for M.Sc. Environmental Science at Bharati Vidyapeeth Deemed University, Pune
 - Paper Setter, Paper Checker (CAP) for M.Sc. Environmental Science at the Savitribai Phule Pune University, Pune
 - Staff selection committee member at Dr. D. Y. Patil College, Pimpri
 - Committee Member of Syllabus Restructuring for B.Sc. & M.Sc. Environmental Science and Microbiology at the Savitribai Phule Pune University, Pune
 - Practical Examiner, Paper Setter & Checker (CAP) for B.Sc. and M.Sc. Environmental Science at New Arts, Commerce and Science College, Ahmednagar (Autonomous)

Patents –

1. Pranay Dilip Abhang, Pramod Prabhakar Moghe and Girish Rajaram Pathade (2019), **“Process for the removal of toxic heavy metals from aqueous solutions”** Indian Patent No.: 362655; Grant Date: 23/03/2021; Indian Patent Application No.: 201921027188; Indian Patent Office Journal No. 44/2019; Dated 01/11/2019.
2. Pranay Dilip Abhang, Pramod Prabhakar Moghe and Girish Rajaram Pathade (2019), **“Ash based process for the removal of pesticides and agrochemicals from aqueous solution”** Indian Patent No.: 382442; Grant Date: 24/11/2021; Indian Patent Application No.: 201921029485; Indian Patent Office Journal No. 5/2021; Dated 29/01/2021.

Papers Published –

1. Shailendra Kamble, Shital Kadam, Pranay Abhang (2022) **“Assessment of Carbon Sequestration Potential of Trees in the Campus of Dr. D. Y. Patil ACS College Pimpri, Maharashtra, India”** *GIS Science Journal*, 9(8), 121-127.
2. Mukund S. Ambawade, Gulab S. Gugale, Komal R. Bankhele, Radhika S. Nirgude, Bhushan P. Bhusare, Girish R. Pathade, and Pranay D. Abhang (2021) **“In-Vitro Study on Improving Antiseptic Efficiency of Cosmetics using Bacteriophage - Cosmetic Formulation”** *International Journal of Pharma Bio Sciences*, 12 (3), 75-85
3. Abhang, P., Walvekar, S., Mahadadalkar, V., & Ambawade, M. (2020) **“Antimicrobial and Antioxidant Properties of Silver Nanoparticles Synthesized from *Escherichia coli*”** *Science, Technology and Development*, 9(7), 55-61.
4. Pranay Abhang and Girish Pathade (2018), **“Indian traditional pest management practices to overcome health hazards of chemical pesticides”** Conference Proceeding, National Conference on ‘Health Hazards of pesticides in Food Commodities in India’.
5. Pranay Abhang and Girish Pathade (2017), **“Agnihotra technology in the perspectives of modern science – a review”** *Indian Journal of Traditional Knowledge*, 16(3), 454-462.

6. Pranay Abhang and Girish Pathade (2016), “**Purification of ambient air by performing Somyag Yajnya**” *International Journal of Environmental Sciences*, 6(5), 707-717.
7. Pranay Abhang and Girish Pathade (2015), “**Evaluation of media components and replace them with sea water for Scytonemin production by using Nostocales**” *International Journal of Pharma and Bio Sciences (IJPBS)*, 6(4), 296-305.
8. Pranay Abhang and Girish Pathade (March 2015), “**Isolation of Nostocales and Study the Effects of Scytonemin on Growth Profile and Melanogenesis by using Melanoma Cell Line**” *International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)*, 4(3), 1260-1267.
9. Abhang Pranay, Patil Manasi, Moghe Pramod (2015), “**Beneficial Effects of Agnihotra on Environment and Agriculture**” *International Journal of Agricultural Science and Research (IJASR)*, 5(2), 111-120.
10. Abhang Pranay (2015), “**Scientific Study of Somyag Yadnya**” *International Journal of Science and Research (IJSR)*, 4: 1, 2080-2083.
11. Abhang Pranay and Pathade Girish (2015) “**Study the effects of Yadnya fumes on SO_x and NO_x levels in the surrounding environment**” *Proceedings of ASTRA 2015, Tattvadipah*, Research Journal of the Academy of Sanskrit Research, 57-62.
12. G R Pathade and Pranay Abhang (2014), “**Scientific study of Vedic Knowledge Agnihotra**” *Bharatiya Bouddhik Sampada*, A Quarterly Science Research Journal of Vijnana Bharati, February - June 2014: 43 – 44, 18-27.

Book Published –

1. “**Rediscovering Indian Knowledge System**” 1st Edition, Pradnya Vikas Shikshan Sanstha, Edited by Kulkarni S., Research and compilation by Moghe Pramod, Holay Prashant and Abhang Pranay.

Dissertations/ Projects –

1. Ph.D. Topic: - **“Scientific studies on Yagnya (Homa), Yagnya ash and fumes in perspectives of modern sciences with reference to the Environment, Microbiology, Plant and Animal health”** (2016-2020) under the guidance of Dr. Girish R. Pathade at Environmental Science Department of Fergusson College, Pune
2. M.Sc. Topic: - **“Screening, optimization and isolation of Scytonemin, a UV screening pigment, from cyanobacteria and study its effect on growth profile and melanogenesis.”** (2013-2014) under the guidance of Dr. Girish R. Pathade at Biotechnology Department of Fergusson College, Pune
3. B.Sc. Topic: - **“Determine the effect of different Ayurvedic compounds on the growth profile and melanogenesis by using B16F10 mouse melanoma cell line.”** (2011-2012) under the guidance of Dr. Dhanashree Godbole at Biotechnology Department of Fergusson College, Pune
4. **“Scientific study of Yadnya (Agnihotra).”** (2011-2014) at Biotechnology Department of Fergusson College, Pune

Technical skills –

- **Environmental resources monitoring –**
Ambient air monitoring, Water quality parameters analysis, Soil analysis, Pesticides estimation, etc.
- **Instruments handling –**
Sequencer, RT-PCR, PCR, HPLC, LCMS, GC, Microscopes, Ultracentrifuge, Lyophilizer, High Volume Air Sampler, Rota Vapor and other common laboratory equipments
- **Tissue culture techniques –**
Maintaining and working with different types of animal cell lines, plant organ culturing, preservation of cells, isolation of cell organelles
- **Molecular biology techniques –**
DNA isolation, SDS-PAGE, Competence and Transformation of cells, PCR, AGE
- **Microbial techniques –**

Cultivation of different algae, fungi and bacteria, culture preservation, characterization of microbes

- **Computational skills –**

MS office, CorelDraw graphics, video making, internet

Seminars, Conferences and Workshops organized –

- Worked as Conference Coordinator for a two days state level conference on “Current status of river water in Pune with reference to pollution, management and restoration”
- Worked as Workshop Coordinator for a one day workshop on “Protein Estimation and Separation Techniques”
- Worked as Workshop Coordinator for a five days workshop on “Plant Biodiversity Conservation by Plant Tissue Culture”
- Worked as a Coordinator for webinar on “Combating Against Covid – 19 Pandemic”

Seminars, Conferences and Workshops participated –

- International conference on Foundation for Environment and Ecology by Christ College, Pune
- “Annual Biotechnology Conference for students” (ABCS-2011) held by I2IT, Pune
- “Biotechnology for Better *Tomorrow - 2020*” seminar held by Marathwada University
- “*Vedic science day*” seminar organized by PVSS and Fergusson College, Pune
- “*Youth seminar*” organized by the Energy and Resources Institute, GOI and TERI
- “*BioCrats Connect Convention*” in Persistent, Pune
- “*Diverse facets of Developmental biology*” seminar organized by SP College, Pune
- Workshop on “scientific report writing” organized by BCUD university of Pune and Abasaheb Garware College, Pune
- Workshop on “*vaccines production*” organized by Serum Institute of India
- Workshop on “*quality control and quality assurance in industry*” organized by Biotechnology department of Fergusson College, Pune
- Workshop on “*leadership 2.0*” by Gandhi fellowship
- Visited to Somyag yadnya for sample collection (in Beed 2013, in Uruli 2014 and in Ratnagiri 2015)

Oral and poster presentations –

- Invited as a speaker by **S-VYASA** in 23rd ‘International Conference on Frontiers in Yoga Research and its Application’
- Delivered a talk on “*Reduction in air pollution during lockdown period due to restrictions in anthropogenic activities*” in a webinar on ‘Covid – 19 Management & Impact of Lockdown on Environment’
- Invited as a speaker by **ICON** trust, Mumbai on the topic of “*cell line preservation*” on the occasion of seminar on ‘oncology in India’
- Oral presentation on the topic “*To determine the effect of different Ayurvedic compounds on the growth profile and melanogenesis by using B16F10 mouse melanoma cell line*” in **PICC**, Mukthangan Exploratory, Pune
- Oral presentation on the topic “Study of Agnihotra” in Biosynapse’13 organized by RJSPM, Bhosari, Pune
- Poster presentation in ‘Biotechnology for Better Tomorrow – **BTBT 2020**’ seminar on the topic of “*Applications of skin organ culture*” in Marathwada University, Aurangabad
- Poster presentation in **ABCS-2011** by I²IT and Chimera, a departmental activity of Fergusson College on the topic “*New method of animal cell line monolayer preservation in fridge*”
- Poster and paper presentation on “*Study the effects of Yadnya fumes on SO_x and NO_x levels in the surrounding environment*” in National Conference on Ancient Science and Technology: Retrospection and Aspiration (**ASTRA-2015**) organized by D. E. S. Fergusson College, Pune.
- Oral presentation on “*Purification of Air by Somyag Yajnya*” in International Conference on Ancient Science and Technology: Retrospection and Aspiration (**ASTRA-2016**) organized by Deccan College, Pune.
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Awards –

- **Global Water Award 2023**, by Global Water Intelligence in collaboration with Almar Water Solutions, USA
- **Water Quality Improvement Award 2023**, by Water Environment Federation USA
- **Global Water Award 2022**, by Energy and Environment Foundation
- **SER2021 Award**, by Society for Ecological Restoration, United Nation in 9th World Conference on Ecological Restoration through the UN Decade on ER
- **National Youth Award 2021-22**, by Ministry of Youth Affairs and Sports, , GoI
- **Young Scientist Award** – award of excellence by Voice of Indian Concern for the Environment during ICEACBS 2021 conference
- **Young Champions of the Earth**, by UNO environment programme
- **Water Quality Improvement Award 2019**, by Water Environment Federation USA
- **Clean Air Excellence Award 2019**, by Environmental Protection Agency, United States
- **“Innovation Young Environmental Scientist 2018”** Department of Biotechnology, Department of Science and Technology, GoI
- **Sammanit Anusandhankarta Puraskar 2020** by CSIR, India on occasion of World Science Day 2020.
- **Merck Young Scientist Award 2019**, under Biological Science Category
- Appreciation award **“Mahamana Pandit Madan Mohan Malaviya Prashansa Puraskar 2021”** by Banaras Hindu University on occasion of Science Day 2021.
- Shri. Hashmukhbhai Patel **Best Teacher Award 2020** by The P.G.K.M’s Haribhai V. Desai College, Pune
- Appreciation award by **Deccan College**, Post Graduate and Research Institute, Deemed University, Pune
- Appreciation award by **Central Pollution Control Board**, Delhi
- Appreciation award by **Maharashtra Pollution Control Board**, Mumbai
- Appreciation award by **National Water Academy** training for excellence, Central Water Commission, Ministry of Jal Shakti, Department of Water Recourses, River Development & Ganga Rejuvenation, GoI

- First prize in model presentation organized by Pune Municipal Corporation's (**PMC**), Indradhanushya Environment and Citizenship Centre, on the topic - "*The scientific study of Agnihotra on the environment*"
- Prizes in 'Vedic science day' organized by **PVSS** and Fergusson College, Pune
 - 1st prize in "Scientific study of Agnihotra"(2013 and 2014)
 - 2nd prize in "Water purification by traditional methods" (2013 and 2014)
 - 1st prize in "Algaecidal properties of Jamun bark"(2014)
 - 1st prize in poster competition on "study of *Cacitoria* plant" (2014)
- First rank in model presentation on "*Flow of electricity from liquid viewer*" on the occasion of Science Day in N. M. V. High School
- **MTS** (Maharashtra talent search) Award in 2005
- "**Maharashtra Dnyanpith**" Award in mathematics
- Best student awards in 2000 and 2007 by N. M. V. High School
- Akhil Bhartiya Sanskriti Dnyan Award in 2000 and 2003
- Drawing Awards- Elementary exam with **C** grade, Ganesh Seva-Pratisthan Award, Janaseva Pratisthan Award, Sanket Kala-Krida academic award, Krushnaji B. T. award, All India Camel colour Contest award

Membership –

- Regional Coordinator for outreach program of Indian Institute of Remote Sensing, Indian Space Research Organisation **IIRS-ISRO**.
- Life member of Microbiologist Society of India
- Member of the expert committee, **Ability Enhancement Compulsory Course** (AECC) for **Environmental Science/Studies** on University Grants Commission, Ministry of Human Recourse Development, GoI, New Delhi
- Invited as *Academic Advisory Committee Member* for water pollution division of **Central Pollution Control Board, Delhi**
- Editorial Board Member **SCIREA Journal of Environment**
- Reviewer on **TRANS STELLAR Journal Publications and Research Consultancy**
- Membership of **Pune Inter College Consortium** (PICC)

Social Activates –

- Member of Paritrnanay (youth for change) NGO
- Teaching value education and Vedic mathematics in primary Marathi schools
- Active participation in “Helpo Foundation” and “Bhartiya Manav Samaj Vikas Kendra”
- Active participation in “Save Turtle” group

Dr. Pranay D. Abhang

References -

1. **Dr. Girish R. Pathade:** Dean, Krishna Institute of Allied Sciences, KIMSUDU, Karad
2. **Dr. Rajashree Patwardhan:** Professor, H. V. Desai College, Pune
3. **Dr. Smita Zinjarde:** Director, Institute of Bioinformatics and Biotechnology, SPPU, Pune
4. **Dr. Pramod Moghe:** Rtd. Scientist, NCL, Pune
5. **Dr. Arvind Deshmukh:** President, Microbiologist Society of India
6. **Dr. Ravindrasinh Pardeshi:** Principal, Fergusson College, Pune
7. **Dr. Ranjit Patil:** Principal, Dr. D. Y. Patil ACS College, Pimpri, Pune