# *Dr. Niranjan Prakashrao Patil*

***M.Sc. Ph.D.***
***Professor (Microbiology)***

## Contact

*Department of Microbiology, MES Abasaheb Garware College. Karve Road, Pune*
*email: niranjan75@gmail.com , npp.agc@mespune.in*

## Educational Background

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|---|---|
| ***Ph.D.*** | *Environmental Sciences (2011), Guide: Principal Dr. V.B. Gaikwad & Prof. B. P. Kapadnis* |
| ***S.E.T.*** | *Teacher's eligibility test qualified in Life Sciences* |
| ***M.Sc.*** | *In Microbiology from Pune University Department* |
| ***B.Sc.*** | *In Microbiology from KTHM College Nashik* |
| ***S.S.C.*** | *School topper with 81.71% marks* |

## Professsional Experiences

| Period | Position held | Place |
|---|---|---|
| *Jan 2026 to date* | *Professor* | *MES, Abasaheb Garware College, Pune* |
| *Jan 2023- Jan 2026* | *Associate Professor* | *MES, Abasaheb Garware College, Pune* |
| *Oct 2010- Jan 2023* | *Assistant Professor* | *MES, Abasaheb Garware College, Pune* |
| *Feb 2005- Oct 2010* | *Assistant Professor* | *KTHM College, Nashik* |
| *June 2003- Feb 2005* | *Lecturer* | *KIT's College of Engineering (Biotech.), Kolhapur* |

**Research Recognition and Interest:**

- *Recognized Ph.D. research guide (SPPU) in Microbiology*
- ***Interest**: Food Microbiology, Agriculture Microbiology, Biodegradation, bacterial exo-polysaccharides, , eLearning resources.*

**SPPU Board Studies Microbiology**

- *Member during period 2018-2022*

**Ph.D. Guidance :**

**Ph.D. Awarded**

- *Dr. Shital Nitin Shevate :*
  *Thesis title 'Studies of quorum quenching biomolecules of bacterial origin'*

- *Dr. Seema Prabhudev Rodge :*
  *Thesis title "Studies on polyhydroxyalkanoates synthesised by microorganisms isolated from extreme environments"*

**Ongoing Ph.D. Guidance**

- *Mr. Vishal Rajendra Landge :*
  *Thesis title "Studies on plant growth promoting bacteria having 1-aminocyclopropane-1-carboxylate deaminase activity and its application in sustainable agriculture".*

- *Ms. Nupura Shrikant Joshi :*
  *Thesis title "Studies on prebiotic and postbiotic potential of exopolysaccharides from microorganisms"*

- *Ms. Saylee Kalekar:*
  *Thesis title "Evaluating the formulation of Nanoparticles and PGPR with respect to plant growth-promoting activities"*

- *Ms. Anuja Madhekar:*
  *Thesis title "Studies on soymilk fermenting probiotic microorganisms enhancing soy curd attributes"*

## Selected Research article:

1. *Mule, A.S., Patil, N.P. (2026). Exploring Secondary Metabolites from Diatoms: Current Trends and Future Opportunities. In: Harish, Sabiu, S. (eds) Algae and Algal Metabolites. Reference Series in Phytochemistry. Springer, Cham. https://doi.org/10.1007/978-3-031-80866-1_14-1*

2. *Joshi, N., Shevate, S., Walhe, R., & Patil, N. P. (2025). Assessment of probiotic characteristics of Latilactobacillus curvatus and Leuconostoc mesenteroides from Indian fermented non-dairy foods. Journal of Microbiology, Biotechnology and Food Sciences, 15(3), e12446. https://doi.org/10.55251/jmbfs.12446 (IF-0.8)*

3. *Pardeshi, S., Patil, N. and Shede, P. (2025), Unveiling the Efficient Sodium Dodecyl Sulfate Degradation Potential of Pseudomonas nitritireducens Using Central Composite Design. Journal of Basic Microbiology e70094. https://doi.org/10.1002/jobm.70094* **(IF.2.7)**

4. *Patil, N.P., Shevate, S.N. Targeting acyl homoserine lactone regulated quorum sensing by quorum quenching enzymes. Biologia (2025). https://doi.org/10.1007/s11756-025-02006-2* ***(IF-1.4)***

5. *Gajbhiye MH,* ***Patil NP****. Sterilization of fermentation media. Book Chapter In: Gajbhiye MH, editor. Fundamentals of Fermentation Technology. Cambridge Scholars Publishing; 2025. p. 66–78.*

6. *Landge Vishal Rajendra and* ***Patil Niranjan Prakashrao*** *(2025) Evaluation of ACC Deaminase producing bacteria over non-producers in protecting Vigna radiata growth under Salt and Boron stress. Res. J. Biotech.; Vol. 20(7); 81-90; doi: https://doi.org/10.25303/207rjbt081090*

7. ***Patil, N. P.****, Waghmode, S. A., & Rodge, S. P. (2025). Synthesis and antibacterial activity of polyhydroxybutyrate sheet impregnated with Ag/TiO2 and Ag/Cu nanocomposites. Biologia. https://doi.org/10.1007/s11756-025-01873* ***(IF-1.4)***

8. *Dhokane, J., Patil, S., Patil, S., & **Patil, N.** (2025). Fungal laccase mediated Remazol Brilliant Blue R (RBBR) dye decolorization and degradation. Research Journal of Biotechnology, 20(1), 36–44. https://doi.org/doi: https://doi.org/10.25303/201rjbt036044*

9. *Rodge, S. P.; Dhanavade, M. J.; Kajale, S. C.; **Patil, N. P**. A Polyhydroxyalkanoate Synthesised by Halophilic Archaeon Natrialba Swarupiae. Environ. Sci.: Adv. **2023**, 2 (7), 990–1000. https://doi.org/10.1039/D3VA00091E. **(IF-3.5)***

10. *Pisal, V.; Wakchaure, P.; **Patil, N**.; Bhagwat, S. Green Synthesized $CeO_2$ Quantum Dots: A Study of Its Antimicrobial Potential. Mater. Res. Express **2019**, 6 (11), 115409. https://doi.org/10.1088/2053-1591/ab4fa5. **(IF-1.8)***

11. *Rodge, S.; **Patil, N.** Draft Genome Sequence of Geobacillus stearothermophilus Strain K4E3_SPR_NPP, Isolated from Kasol Hot Spring, Himachal Pradesh, India. Microbiol Resour Announc **2022**, 11 (6), e00194-22. https://doi.org/10.1128/mra.00194-22. **(IF-0.7)***

12. *Rodge, S. P.; Shende, K. S.; **Patil, N. P.** Polyhydroxyalkanoate Biosynthesis and Optimisation of Thermophilic Geobacillus Stearothermophilus Strain K4E3_SPR_NPP. Extremophiles **2023**, 27 (2), 13. https://doi.org/10.1007/s00792-023-01300-8. **(IF-2.4)***

13. *Shevate, S.; Bankar, A.; **Patil, N. P.** Assessment of quorum quenching activity of Serratia spp. isolated from plant rhizosphere against quorum sensing controlled biofilm-forming pathogens. J Microb Biotech Food Sci **2022**, 12 (3), e5753. https://doi.org/10.55251/jmbfs.5753. **(IF-0.8)***

14. *Shevate, S. N.; Shinde, S. S.; Bankar, A. V.; **Patil, N. P**. Identification of Quorum Quenching N-Acyl Homoserine Lactonases from Priestia Aryabhattai J1D and Bacillus Cereus G Isolated from the Rhizosphere. Curr Microbiol **2023**, 80 (3), 86. https://doi.org/10.1007/s00284-023-03186-3. **(IF-2.4)***

15. *Shevate, S. N.; **Patil, N. P**.; Waghmode, S. A. Synthesis and Evaluation of Quorum Quenching Activity of Ag, TiO2 and ZnO Metal Nanoparticles against Wild Type and Mutant Strains of Chromobacterium violaceum. Res. J. Chem. Environ. **2022**, 26 (8), 127–133. https://doi.org/10.25303/2608rjce1270133.*

16. *Navghare, Priyanka, **Niranjan P. Patil**, and Shivaji Sathe. "Optimization by Fractional Factorial Design to Initiate L-Asparaginase Production by Enterobacter xiangfangenesis." Research Journal of Biotechnology 16(11):27–36. doi:https://doi.org/10.25303/1611rjbt2736.*

17. *__Patil, N__.; Bholay, A.; Kapadnis, B.; Gaikwad, V. Biodegradation of Model Azo Dye Methyl Red and Other Textile Dyes by Isolate Bacillus circulans NPP1. J PURE APPL MICROBIO **2016**, 10 (4), 2793–2800. https://doi.org/10.22207/JPAM.10.4.38. **(IF-0.7)***

**Project Grants:**

| Sr | Year | Project Title | Funding agency | Outlay | Role |
|---|---|---|---|---|---|
| 1 | 2024-26 | "Studies on plant growth promoting bacteria having 1-aminocyclopropane-1-carboxylate deaminase producing plant growth promoting bacteria on maize by using nano formulations" | BCUD-SPPU | 2 Lakh | Co-PI |
| 2 | 2017-19 | Screening of commercially important enzymes from available culture collection | DBT PPP | 3.92 Cr | Co-PI |
| 3 | 2016-18 | Isolation of PGPR from rhizoplane of *Ficus religiosa* and it's effect on the growth of the plants cultivated in aeroponic system | BCUD SPPU | 2 lakh | Co-PI |
| 4 | 2015-17 | Studies on Biodiversity of poly-extremophilic bacteria for their probable use as test organisms in space research | ISRO STC SPPU | 9 lakh | Co-PI |
| 5 | 2013-15 | ACC deaminase based screening of Multifunctional Plant Growth Promoting Rhizobacteria (PGPR) from Onion Rhizosphere (*Allium cepa*) | UGC | 3 lakh | PI |
| 6 | 2006-08 | Biodegradation and Bioremediation textile dyes | BCUD UOP | 2 lakh | PI |

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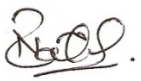

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