

FACULTY PROFILE

Dr. Pragya Kulkarni

Designation	Assistant Professor (Sr. Scale), Head, Dept. of Microbiology
College	Govt. V.Y. T. PG Autonomous College, Durg(Accredited ‘ A+’ grade by NAAC)
Affiliated University	Hemchand Yadav University, Durg (C.G.)
Date of Birth	29.04.1969
Residential Address	Lotus, 55, Talpuri, Bhilai, Dist. Durg, (C.G.)
Phone No.	09826142086
Mailing Address	pragya.mic@gmail.com
Academic Qualification	<ul style="list-style-type: none"> • M.Sc. Botany (Plant Pathology) – Pt. RSU Raipur, 1989 (Gold Medal) • Ph.D. Bioscience (Microbiology) – Pt. RSU Raipur, 1994 • Orientation Course – Lucknow University, Lucknow, 1998 • Refresher Course I – Barkatullah University, Bhopal, 1999 • Refresher Course II – Allahabad University, Allahabad, 2004
Teaching Experience	From October 1993, UG and PG (30 years)
Subject Taught	Plant Pathology, Plant Biotechnology, Microbial Biotechnology, Microbial Genetics, Bioinstrumentations and Techniques, Biostatistics, Genetic Engineering. and Environmental microbiology
Research Experience	30 years, Mushroom Biotechnology, Bio-fertilizers and Microbial Metabolites, Bioremediation of soil and water Research Guide: Botany since 2011; Microbiology since 2019
Publications	Full length Papers in National and International Journals – 39
Seminars / Workshops/Trainings/ FDP	<ul style="list-style-type: none"> • Participated - 56 • Organized – 14 • As resource person – 42
Research Projects	Research Project Completed – 02(UGC MRP), 01(CCOST)
Dissertation Guidance	M.Sc.Microbiology Projects – 28
Ph.D. Guidance	01 (Ph.D. awarded); 06 Working
Fellowship and Awards	<ul style="list-style-type: none"> • Fellow of Society of Life Sciences (since 2011) • Best Teacher Award (Microbiologist Society India, 2021-22) • State President MBSI 2023-24
Administrative Experience	<ol style="list-style-type: none"> 1. Head – Dept. of Microbiology Since 2009 to till date 2. Member – IQAC Since 2013 to 2017; 2020 to till date 3. Deputy Controller – Autonomous Examination Cell from 2002-2009;2016 to 2021 and 2023 to till date
Field of Interest	Organizing Science Quiz, Improving Presentation Skill, Research Methodology, designing new exercises using Latest Equipment, Formulation of handouts on Practical for UG & PG classes, Environment awareness campaigns

Seminars / Workshops/ Trainings (Attended/ Participated)

1. National Symposium on Biotechnology for rural areas. Govt. Science College, Raipur, 1991.
2. 7th MP Young scientist congress 7-10 Feb, Indore, 1992.
3. National seminar on Botany, National Academy of Sciences, Udaipur, 1993.
4. National Symposium on Mushrooms, Solan, 1994.
5. National Seminar on Medicinal and Aromatic Plants- Biodiversity, Conservation, Cultivation and Processing, 26-27 Feb. Raipur, 2005.
6. National Symposium on Plant diversity and its Conservation, 11-12 Nov., Bhilai, 2005.
7. Demonstration on DNA Technology, Pt. RSU, 23-24 November, Raipur, 2005.
8. Annual Session on Mining and Environment, 21-22 March, Raipur.2006.
9. National Science Day Seminar, 27 April, Durg, 2006.
10. 14th National Conference on Aerobiology, 15-17 January, Raipur, 2007.
11. National Conference on Species Diversity: Measurement, Magnitude, Gradients Uses and Conservation, 26-27 February, Rajnandgaon, 2007.
12. National Seminar on Botanical Researches: Present Scenario and Future Prospects, 29-30 January, Raipur, 2008.
13. Workshop on Microbial Technology and Molecular Biology 10-19 March, Sagar, 2008.
14. Workshop on “Hands on Training in Enzymology” (Rennet and Bromolain), 20-23 December, Durg, 2010.
15. National Seminar on Recent Trends in Bio-Geo Sciences, 14 October, Nagpur, 2010.
16. National Conference on Frontiers of New Biology, 9-10 December, Bhilai, 2010.
17. National Conference on Climate change and its effect on Biodiversity. 5-6 February, Bhilai, 2011.
18. Workshop on Genomics 13-15 April, Durg, 2011.
19. National Seminar on Ecosystem and Biodiversity: Bank of Natural Capital 27-28 March, Jamshedpur, Jharkhand, 2012.
20. International Conference on Technology Enabled Organizational Transformation, Bhilai. 21-23 June, 2012
21. National Conference on Biological science in current scenario. St Thomas College, Bhilai, 10-11 October, 2012.
22. National Workshop on Mushroom Cultivation and its post harvest management. BMM, Bhilai, 02 – 05 November, 2012.

23. National Workshop on Hands on DNA Technologies, 08-11 January, Raipur, 2013.
24. State Level Workshop on Enhancement of Communication Skills (English). 2-3 Feb. Durg, 2013.
25. International Conference Shaastrarth -2013, Bhilai, 08-09 February, 2013.
26. National Workshop of IQAC for teachers, Durg, 08-09 February, 2013.
27. Interdisciplinary National Seminar on Impact of Agrochemicals on Ecosystem, SSSM, Bhilai 23-24 August, 2013.
28. National Conference on Integrative genomics, Shri Shankaracharya Mahavidyalaya, Bhilai, 11-12 Feb. 2014
29. National workshop on isolation and Identification of Aerobiomolecules. BMM 02-04 Nov. 2015 (RP)
30. Workshop on Green Chemistry VYT, Durg, 30.11.2015
31. National Seminar on Energy Harvesting Materials and Techniques for Sustainable Development. VYT, Durg, 2-3 Dec. 2015
32. National Seminar on Advance in Environmental Sciences and Technology, 23-24 January, 2017, Govt. Digvijay College, Rajnandgaon
33. National Seminar on Present Scenario in Phytomicrobial aspects beneficial to mankind, 27-27 January 2017 W. W. Patankar Girls College, Durg
34. Chhattisgarh young Scientist meet 27- 28 Feb. 2018
35. International conference on Multifunctional Advanced Materials-2018 Kamala Nehru College, Nagpur 5-7 October, 2018
36. Workshop on e-learning and MOOCs, MHRD, Pt. RSU, Raipur. 19 -24 August 2019 (STC)
37. Workshop on Evaluation Reforms, UGC- CRO, Bhopal. 24-25 October 2019
38. National Seminar on Emerging Trends in Natural Resource Management, Govt. ERR College of Science, Bilaspur, 16-17 Feb. 2020
39. International Seminar on A new Microbiome Research Era for Human Welfare and Cure of Infectious Diseases, Shri Shankaracharya College, Junwani, Bhilai 28-29 Feb. 2020
40. FDP on Hands on with ICT tools organized by Atal Bihar Vajpayee Vishwavidyalaya, Bilaspur. 10-21 August 2020
41. FDP Pedagogical Training on ICT Tools for Online Teaching, Learning and Evaluation organized by Swami Ramanand Teerth, Marathwada University, Nanded (M.S.) 01-06 July, 2020
42. FDP on ICT Tools for Teaching Learning Process and Institutes, Electronics and ICT Academics, NIT Patna, 10-21 August 2020

43. FDP on ICT Tools, Govt. VYT PG Autonomous College, Durg, 11-12 September 2020
44. National Workshop on Research Methodology, Govt. VYT PG Autonomous College, Durg, 24.05.2021 to 30.05.2021
45. Workshop on Yoga at Home and Yoga with family, Govt. VYT PG Autonomous College, Durg, 18.06.2021 to 02.07.2021
46. FDP on Research and Teaching Methodology, Govt. VYT PG Autonomous College, Durg, 05.07.2021 to 11.07.2021
47. Presented Poster in International Conference on Biotechnology for Better Tomorrow organized by Udayana University, Bali, Indonesia, 29-30 October 2022.
48. National Conference on Emerging Materials and Nanotechnology organized by Govt. V.Y.T. PG. Autonomous College, Durg. 18-19 November 2022.
49. National Conference on Innovation and Emerging Novel Research in Plant Sciences, organized by Govt. VYT PG Autonomous College, Durg. 17-18 January 2023.
50. National Conference on Biotechnology for Better Tomorrow, organized by Microbiologists Society, India and Taywade College, Nagpur (M.S.). January 22-24, 2023.
51. National Seminar on Current Trends and Prospects in Botany organized by Govt. Nagarjuna PG College of Science, Raipur. 16-17 February 2023.
52. Professional Development Program on Implementation of NEP 2020 for University and College Teachers, organized by IGNOU and UGC 12 to 18 June, 2023 (36 hrs.).
53. Short Term Training Programme on Indian Knowledge Systems, HRDC, RTM Nagpur University, Nagpur in collaboration with IKS Division, Ministry of Education, Government of India, New Delhi. 31 July to 05 August 2023.
54. National Seminar on Innovations and Reforms in Teaching Learning Process in Higher Education, organized by Govt. Dr. W.W. Patankar Girls College, Durg. 30
55. National Faculty Development Programme on Indian Knowledge System (IKS) 2023, organized by Govt. Indira Gandhi PG College, Vaishali Nagar, Durg. 7-14 October 2023.
56. Mathematics in Biological Sciences: Calculations and Applications, 30 October to 05 November 2023

Seminars / Workshops/ Trainings (Organized as Organizing Secretary/ Convener)

1. Hands on Training in “Enzymology – Rennet and Bromolain” 20-23 January 2010. In collaboration with Nitza Biologicals Hyderabad. (Convener)
2. Workshop on “Genomics” 13-15 April 2011. In collaboration with Disha Life Sciences, Ahmadabad. (Convener)

3. UGC sponsored National Seminar on Recent trends in Plant and Microbial Sciences 26 – 27 Nov. 2011(Organizing Secretary)
4. Training programme on Microbiological Techniques for Food Analysts of Food and Drug Administration, Chhattisgarh, Raipur. 30 Jan. - 03 Feb. 2012.
5. Hands on workshop on “rDNA Technology and Instrumentations” 08-14 March 2016 in collaboration with Nitza Biologicals Hyderabad. (Convener)
6. Workshop on Molecular Techniques in collaboration with Disha Biotech, Ahmadabad 2017 (Convener)
7. Activity Week and Hands-on Training on “Advanced Learning in Biological Sciences” 13 - 19 January 2020 in collaboration with Pt. R.S. University, Raipur, BMM, Bhilai, and CMBR, Bhopal. (Convener)
8. National e Workshop on “Prospects of Blended Learning Beyond COVID-19” 2020 (Organizing Secretary)
9. National Conference on “Promises and Challenges with Microorganisms” on the occasion of International Microorganisms Day, 17.09.2021 (Convener)
10. Collaborative workshop for advanced learners of UG students on “Understanding Biochemical Techniques and Its Applications” in association with Codon Biotech Pvt. Ltd. Noida (UP) 14.09.2021 – 22.09.2021. (Organizing Secretary)
11. Workshop and Dry Lab on Bioinformatics (17-24 December 2021)
12. Hands on Training: Handling of Foldscope (Paper Microscope) in collaboration with National Institute of Biotic Stress Management, Baronda, Raipur (24.03.2022)
13. Workshop and Hands on Training ‘Awareness on Trends in Technology: Immunodiagnostics, Nanotechnology and Bioinformatics for Microbiology’ (09-15 January 2023)
14. Workshop on NIRF ranking, organized by IQAC, Govt. V.Y.T. PG Autonomous College, Durg, as organizing Secretary. 21 October 2023.

Guest Lectures delivered /Resource Person in Seminar/ Workshop

1. Guest Lecture on Biodiversity and its Conservation in Workshop on Botany and Zoology, Education Department BSP Bhilai, (11.09.2009)
2. Guest Lecture on Instrumentation and Techniques, Kalyan Mahavidyalaya, Bhilai, (06.01.2010)
3. Guest Lecture on Applications of Biostatistics in Biotechnology, Bhilai Mahila Mahavidyalaya, Bhilai, (03.01.2012)

4. Lecture on Applications of biostatistics in Biotechnology, Bhilai mahila Mahavidyalaya, Sec.9 Bhilai (06.10.2012)
5. Resource Person in Two-day state level work shop on applied aspects of Botany, Shri Shankaracharya Mahavidyalaya, Bhilai, (25.11.2013)
6. Television show - Raipur Doordarshan, Future Prospects and Job Possibilities in Microbiology. (06.12.2013)
7. Lecture on Preparation of Departmental Profile, St. Vincent Peloti College, Raipur (14.08.2014)
8. Lecture on Preparation of Departmental Profile, Swami Swarupanand Saraswati College, Bhilai (25.11.2014)
9. Lecture on Recent Advances in Life Science, Bhilai Mahila Mahavidyalaya, Sec. 9, Bhilai (11.11.2014)
10. Resource person in Two days' Workshop on isolation and Identification of Aerobiomolecules. BMM, Bhilai (03.11.2015)
11. Guest lecture on NAAC Preparation, Govt. Digvijay college, Rajnangoan (07.11.2015)
12. Lecture on Preparation of Departmental Profile, Swami Swarupanand Saraswati College Bhilai (25.11.2015)
13. Guest lecture on Environment Awareness Shri Shankaracharya College, Junwani, Bhilai. (14.12.2015)
14. Guest lecture on Quality enhancement through best practices in one day State Level workshop of RUSA, Govt. Bilasa Girls College, Bilaspur (13.02.2016)
15. Guest lecture on Microbial Genetics and Applications of Biostatistics, Govt. Digvijay College, Rajnandgaon (17.02.2016)
16. Lecture on Ecosystem and Biodiversity VYT, Durg (02.03.2016) (Recorded)
17. Guest Lecture on Mushroom and Biotechnology in 07 days workshop on Oyster mushroom: Spawn production and cultivation BMM, Bhilai (17.10.2016)
18. Guest lecture on Mushroom cultivation technology in 07 days workshop on Mushrooms, Utai(09.11.2016)
19. Guest lecture on Biotechnology: Ancient and Modern, Kalyan PG College, Bhilai. (12.11.2016)
20. Guest Lecture on Academic Audit, Govt. College, Patan (17.02.2017)
21. Guest Lecture on Aerobiology: Tool for assessment of quality of air, Shri Shankaracharya Mahavidyalaya, Junwani, Bhilai. (18.02.2017)
22. Guest Lecture on Antibiotics Vs Vaccine, Govt. Digvijay College, Rajnandgaon. (30.03.2019)

23. Guest Lecture on Aero Spora, BMM, Bhilai (21.09.2019)
24. Key Note Lecture in National Seminar on Emerging Trends in Natural Resource Management, Govt. ERR College of Science, Bilaspur, (16-17 Feb. 2020)
25. Guest lecture on NAAC Criteria I in SLQAC workshop under Paramash scheme, Govt. VYT PG Autonomous College, Durg, (15.07.2020)
26. Guest lecture on Blooms Taxonomy at Guru-dakshta Programme, HRDC, Pt. R S U, Raipur (16.09.2020)
27. Lecture on NAAC criteria I,II and III Govt. College Dongargarh (27.10.2020)
28. Guest lecture on Blooms Taxonomy at Guru-Dakshata Program, HRDC, Pt. R S U, Raipur (05.02.2021)
29. Guest Lecture on NAAC accreditation process St. Thomas College Bhilai
30. Guest Lecture on NAAC accreditation process Matoshri Nanibai Gharphalkar Science College Babhulgaon Dist. Yavatmal (M.S.) (01.06.2021 – 05.06.2021)
31. Lecture on Advance Learning in Biological Sciences, Kalyan PG College, Bhilai (31.03.2022)
32. Guest Lecture on NAAC Criteria I, in One Week National Level Workshop on New NAAC Accreditation Frame Work and Awareness, at Govt. Digvijay College, Rajnadaon (C.G.) (07 – 15 June 2022)
33. Guest lecture on Blooms Taxonomy at Guru-Dakshata Program, HRDC, Pt. R S U, Raipur (05.07.2022)
34. Resource person in NAAC Workshop organized by Applo College, Anjora, Durg (19-20 October 2022)
35. Judge in District Level Project Competition, National Children Science Congress on focal theme 'Understanding your Ecosystem' organized by CCOST, Raipur (10.11.2022)
36. Guest lecture on Blooms Taxonomy at Guru-Dakshata Program, HRDC, Pt. R S U, Raipur (03.11.2022 to 06.12.2022)
37. Resource person in Divisional level FDP organized by Dept. of Higher education Durg Division (07.12.2022)
38. Resource person in Divisional level FDP on Role of IQAC and SSR Preparation organized by Swami Shri Swarupanand Saraswati Mahavidyalaya Bhilai and Dept. of Higher education Durg Division (21.12.2022)
39. Resource person in Workshop on Microbial Culture Technique organized by Govt. E.R.R. College of Science (11-14 January 2023)
40. Lecture St. Thomas College on NAAC Accreditation System 07.09.23

41. Lecture Shri Shankaracharya Mahavidyala Junwani at National Conference on Molecular Techniques. 15.09.23
42. Lecture on Indian Knowledge System, in FDP Organized by Govt. V.Y.T. PG Autonomous College, Durg. 20.09.23

Detail of Publications

Book Chapter

1. Potential concern of food-born pathogens in food industry. In Biological and Chemical hazards in food and food products: Prevention, Practice and management, Chapter 2, Vol. 36, Ed. Santosh K. Mishra, Megha R. Goyal and Manju Gaare, Published by Apple Academic Press, June 16, 2022; ISBN 9781774637135

Full Papers

1. Assessment of yield and biological efficiency of *Pleurotus* spp. on two natural substrates. Biome, 4(2):129-132, 1989.
2. Studies on *Pleurotus* spp. as related to spawn production. Indian Mushrooms, 72-73, 1991.
3. ArbuscularMycorrhizal association and diversity with some weeds of cultivated fields. Adv. Plant Sci., 20(2):69-73, 2007.
4. Mandeepkhol Cave: Natures wonder in Rajnandgaon Dist. Chhattisgarh, India. J Currt. Sci. 10(2) 757-762, 2007.
5. Mandeepkhol Caves: A classical site of Krast Topography, Rajnandgaon Dist. Of Chhattisgarh, India.Ultra Sci. 19(1):153-155. 2007.
6. Occurrence of ArbuscularMycorrhizal association and diversity in field weeds. J. Bot. Soc. Sagar Uni. 43: 88-95, 2008.
7. Vesicular ArbuscularMycorrhizal infection process in *Andrographispeniculata*. National Journal of Life Sciences. 7 (3): 2010.
8. A prevalence of sickle cell disease among various communities in Jamul area of Bhilai, Chhattisgarh, India. In, Proceedings: National seminar on Sickle Cell Disease, Kabirdham Dist. 29-30 Jan, 80-83. 2011
9. Aeromycological profile of the public parks of Bhilai Township, Chhattisgarh, India. Indian Journal of Science and Technology. 4(5): 19-21, May, 2011.

10. Biodiversity of ArbuscularMycorrhizal (AM) fungi associated with cultivated medicinal plants. Adv. Plant Sci. 24(1): 125-128, 2011. (IF- 2.7)
11. Response of ArbuscularMycorrhizal (AM) fungi on growth of cultivated medicinal plants. Adv. Plant Sci. 24(2): 487-490, 2011. (IF - 2.7)
12. Differential temperature and growth pattern of *Bacillus subtilis* strain isolated from different area of Bhilai (C.G.) In Proceedings National Seminar on Climate Change and its effect on Biodiversity. Bhilai, 67-71. 2011.
13. Intramural Aeromycological studies in the environment of residential colonies near social forests of Bhilai Township, Chhattisgarh. In Proceedings National Seminar on Climate Change and its effect on Biodiversity. Bhilai, 2011.
14. Airborn *Aspergillus* in different environments of Bhilai Township. In Proceedings of National Seminar on Emerging Trends in Scientific Research, 11-12 October 2011, Durg. 81-85, 2011.
15. Isolation, confirmation and amplification of α amylase from *Bacillus subtilis* soil isolates. Int. Res.J. Lab to Land, 3(11): 373-375, 2011.
16. Studies on absorption tendencies of chromium & zinc from water by *Pistia stratiotes* under experimental conditions. National Journal of Life Sciences, Volume 09 (1): 128-130, 2012.
17. Studies on removal of toxic heavy metals from water by *Eichhornia crassipes* National Journal on Scientific Research, 3(2): 99- 103, 2012.
18. Evaluation of antimicrobial activity and characterization of soil Actinomycetes from Social Forest area of Bhilai Township, Chhattisgarh. Journal of Pure and Applied Microbiology, 6 (2): 1985-1990, 2012.
19. Bio-absorption of Zinc from pond water using water lettuce (*Pistia stratiotes*). Journal of Ecobiotechnology, 4 (2):145-147, 2012.
20. Screening and evaluation of soil fungal isolates for xylanase production. Recent Research in Science and Technology, 5(2): 33-36, 2013.
21. Antibacterial activity of ZnO nanoparticles obtained using Neem leaf extract as Biological Template against *Escherichia coli*. Adv. Plant Sci. 26(2): 367-370, 2013. (IF– 2.7)
22. Effect of Agro-Edaphic conditions on the association, diversity and distribution of AM fungi associated with indigenous weed flora. Indian J.Sci.Res.4 (1): 53-59, 2014 (IF 1.4)
23. Fresh Water Cyanophycean Algae from Durg and Rajnandgaon District (C.G.), India. International Journal of Science and Research (IJSR), 3(8): 1337-1341, 2014. (IF : 3.358)

24. Studies on removal tendencies of toxic heavy metals from water by *Pistia stratiotes* and *Eichhornia crassipes* under experimental conditions. Adv. Plant Sci. 27(2): 473-476, 2014. (IF– 2.7)
25. Heavy Metal Tolerance Studies of Cyanobacterial Species under Experimental Conditions. Periodic Research, 3(2): 93-95, 2014.
26. Green synthesis of ZnO nanotubes for bio-applications. International Journal of Advanced Engineering Research and Studies, 4(2): 280-281, 2015.
27. Study of Photocatalytic Degradation of Methyl Orange by ZnO Catalysts synthesized through biotemplates. International Journal of Computer & Mathematical Sciences, 4, Special Issue September: 47-52, 2015.
28. Heavy metal tolerance studies on the fresh water filamentous cyanobacterial species of Durg-Rajnandgaon dist., C.G., India. Adv. Plant Sci. 28(2): 217-220, 2015. (IF– 2.7)
29. Study of photocatalytic degradation of methyl orange by ZnO catalyst synthesized using medicinal plant (*Catharanthus roseus*) as bio-template. Int. J. Advanced Research in Science and Engineering. 4(1): 124-129, 2015
30. Blue emitting ZnO nanostructures grown through cellulose bio-templates. Luminescence, 31(4): 978-85 2016
31. Morpho-Taxonomic Studies of Cyanobacterial species from the paddy fields of Rajnandgaon –Durg district, India. Adv. Plant Sci. 29(2): 175-178, 2016. (IF– 2.7)
32. A comparative study on *Nostoc* and *Oscillatoria* Spp. for Heavy Metal tolerance and Biomass production. National J. Life Science, 13(2): 147-150, 2016
33. Estimation of Chlorophyll content of some green leafy vegetables for their biochemical properties. Indian J. Sci. Res. 13(2): 170-171, 2017
34. Effect of heavy metals as environmental stress on some leafy vegetables. Indian J. Sci. Res., 12 (2): 197-199, 2017
35. Effect of Cross Linking on the Toxicity of CdTe QDs in Solid/ Liquid Medium. Journal of Biotechnology and Biochemistry. 3 (3) (May - June 2017): 60-64, 2017
36. Amelioration of toxic effects of heavy metals in Gram and Paddy through *Nostoc spongiaeforme*. Flora and fauna. 23 (Special Issue): 116-123, 2017
37. Estimation of chlorophyll content of some medicinal plants for their biochemical properties. flora and fauna. 23 (Special Issue): 124-126, 2017
38. Standardization of Bioprocess Parameters for Optimization of Xylanase Production by *Aspergillus niger* Soil Isolate. IJCRT, 8(4): 1099-1109, 2020
39. Isolation and Screening of Amylolytic and Pectinolytic Bacteria from Indigenously Prepared Bioenzyme and its Application for Pond Water Treatment. International Journal

Ongoing/ Completed Project works

1. Establishment of pure culture, maintenance and mass inoculum production of Vesicular Arbuscular Mycorrhizal fungi and study their effects on cultivated medicinal plants. UGC Minor Research Project, 2006-08. Status- Completed. 50,000/-
2. Screening, evaluation and invitro studies on soil fungal isolates for xylanase enzyme with reference to production and characterization UGC (MRP), 2012- 2014, Status – Completed. 2,00,000/-
3. Bio template based ZnO nanoparticles and their uses for anti-microbial activity. CCOST, Raipur. 2014-16. Completed. 4,60,000/-

Supervision of Ph.D. Program

1. Chetna Gupta - “Cyanobacterial species of Durg-Rajnandgaon District with reference to Bioremediation of Heavy Metals” Awarded 02.01.2021 (Botany)
2. Shanti Kumari Rajwade - “Studies on *Curcuma caesia* (Kali haldi) and *Ocimum canum* (Kali tulsi) for nutritional and medicinal properties from Chhattisgarh” ongoing since 2018 (Botany)
3. Rekha Gupta - ‘Studies on Indigenous Fungal strains for Thermostable Protease Production and Applications’ ongoing since 2019 (Microbiology)
4. Anamika Sharma - ‘A feasibility studies to develop Biopesticides against economically significant crop pest’ ongoing since 2019 (Microbiology)
5. Hempushpa Urwasha - ‘Bioremediation potentiality studies on low density polythene degrading indigenous bacteria’ ongoing since 2019 (Microbiology)
6. Taniya Sahu
7. Laleeta

Supervision of Dissertations of M.Sc. Microbiology

1. Incidence of Bacteraemia and Septicemia in some patients: A case study of Pt. J.L.N. Memorial Hospital and Research Center Sec. 9 Bhilai. 2007 (Shilpa Gupta, Durg)
2. Urinary tract infection in adult women: A case study in Pt. J.L.N. Memorial Hospital and Research Center Sec. 9 Bhilai. 2007 (Sonali Sarkar, Durg)
3. Survey of field weeds for Arbuscular Mycorrhizal (AM) association. 2008 (Manisha Dewangan, Durg)

4. Studies on cultivated medicinal plants for ArbuscularMycorrhizal (AM) association. 2008 (Sonali Sarkar, Durg)
5. Isolation and characterization of Actinomycetes from soil samples of social forest of Bhilai Townshipand study their antimicrobial activity. 2011 (Rozina Siddique, Durg)
6. Isolation, Screening and Impact of process parameters on fungal xylanase production from soil isolates. 2011(Nivedita Gupta, Durg)
7. Studies on bacterial consortium isolated from various polluted soil for hydrocarbon tolerance. 2012 (Vibha Thakur, Durg)
8. Isolation and characterization of Actinomycetes with reference to phytotoxic activity. 2012 (Remma nema, Durg)
9. Studies on heavy metal toxicity and tolerance of indigenous bacterial consortium.2012 (Poonam Sahu, Durg)
10. Standardization of Cultural conditions and screening of indigenous cyanobacterial cultures for heavy metal tolerance. 2014 (Nutan Shrivastava, Bilaspur)
11. Screening of *Aspergillus* species for lipase production. 2014 (Pooja Singh Rajput, Bilaspur)
12. Studies on weed plants from cultivated fields for Arbuscular Mycorrhizal fungal association, diversity and mass production. 2015 (Nandinee Sahu, Durg)
13. Studies on indigenous ray fungal isolates (Actinomycetes) for lipase and xylanase production. 2015
14. Studies on carbohydrate fermentation by Escherichia coli soil isolates. 2015 (Snigdha Vaishnav, Durg)
15. Studies on indigenous Keratinophilic fungi with reference to protease production, substrate degradation and control. 2015 (Durg)
16. Studies on Antimicrobial activity of some fruit extracts. 2015 (Chandra Prakash, Durg)
17. Isolation of in-vitro polysaccharide producing fungi from soil samples. 2015 (Pratima Beck, Bilaspur)
18. Isolation, screening and characterization of cellulase producing fungus from paper industry. 2015 (Sharda Banerjee, Bilaspur)
19. Isolation and Identification of Protease producing fungi from Air.2016 (Sonam Kaushik, Bilaspur)
20. Screening of some domestic show plants for anti Bacterial activity. 2016 (Niti Rathore, Bilaspur)
21. Antibacterial activities of Fungi. 2017 (Arti Borkar, Durg)

22. Study of Diversity of Indoor Aero Micro flora at Different Animal Shed. 2017 (Shikha Dubey, Durg)
23. Detection of Extracellular Lipase from Bacteria with reference to Hydrocarbon polluted soil from Durg- Bhilai area. 2017 (Madhusmita Goud)
24. Degredationof Petol and Diesal by Bacteria isolated from different Garbage dumping area and Petrol pumps 2017 (Reshma Begam, Durg)
25. Screening of Lipase production by Microorganisms 2017 (Devesh Sahu Bilaspur)
26. Diversity of Arbuscular mycorrhiza in weeds of College Campus 2017 (Kishan Lal Dhruv Bilaspur)
27. Azotobacter isolation, characterization, identification and salt tolerance behavior in rhizospheric soil of flowring plants.2018 (Suman Patel, Bilaspur)
28. Antagonistic activity of Aeromicroflora.2018 (Sheela Patel, Bilaspur)
29. Isolation and Screening of cellulose Enzyme from soil fungal isolates. 2019 (Khushboo Patel, Bilaspur)
30. Screening of cellulase producing indigenous fungi 2019 (Kiran Patel, Bilaspur)
31. Screening of Xylanase producing indigenous fungi 2020 (Priyanka Tondan, Bilaspur)
32. Thermostable enzyme production by indigenous fungal cultures 2020 (Garima Singh, Bilaspur)
33. Shaily 2022
34. Tilottama 2022
35. Ranjeeta 2022
36. Bilaspur 2023
37. Bilaspur 2023
38. Bilaspur 2023
39. Durg 2023
40. Durg 2023

Nomination as Expert

1. Subject Expert (Microbiology) Pt. R.S. University, Raipur, for Interview of St.Thomas College, Bhilai 2009
2. Subject Expert (Microbiology) Pt. R.S. University, Raipur, for Interview of Statue 28, Shiva College, Bhilai, 2009
3. Subject Expert (Microbiology) Pt. R.S. University, Raipur, for Interview of Statue 28, Rungata College, Durg ,2011

4. Member of Board of Studies in Botany and Microbiology, for approval of syllabus for the session 2016-17, 2017-18, 2018-19 Durg University, Durg
5. Member for preparation of panel of examiners for UG and PG Semester I, II and III, IV examination Botany 2016, 2017, 2018, 2019, 2020 Hemchand Yadav University, Durg
6. Member of Academic Council, Kalyan PG Autonomous College, Bhilai Nagar, nominated by VC, Durg University, Durg for the sessions 2016-17 and 2017-18.
7. Subject Expert (Microbiology) Hemchand Yadav University, Durg, for Interview of Statue 28, Bhilai Mahila Mahavidyalaya, Bhilai, 2018
8. Subject Expert (Microbiology) Hemchand Yadav University, Durg, for Interview of Statue 28, Swami Shri Swarupanand Saraswati Mahavidyalaya, Bhilai 2019
9. Member of Board of Studies as subject expert, Govt. Digvijay College, Rajnandgaon 2019-21
10. Member of Board of Studies as subject expert, Govt. Nagarjun Science PG college Raipur 2019-21
11. Member IQAC Govt. College, Machandur 2021-23
12. PSC Valuation, Botany. July, 2021, September, 2021, July, 2022

Work Experience at College Administration

1. Head, Dept. of Microbiology Since 2010
2. Member college IQAC From 2014 -2017 & July 2020 to till date
3. Deputy Controller, Autonomous examination cell from 2002 to 2009; from 2016 to July 2020
4. Member IQAC August 2020 till date

Awards and Achievements

1. Member of Editorial Board – Journal of Basic Biology, Biologists Forum of India, Marina Labs, 40, Anna NedumPathai, Choolaimedu, Chennai (From 2010)
2. Fellowship (F.S.L.Sc.) Society of Life Sciences (2011)
3. Runner-up Trophy for Shakti Quiz -2013. Organized by Business Excellence Dept., SAIL, Bhilai, 8th March, 2013
4. Life Member Microbiologist Society, India, since May 2022
5. Best Teacher Award, Microbiologists Society, India. Session 2021-22
6. State President Microbiologists Society, India (CG Chapter) 2023