

#### Dr. D.Y. Patil Vidyapeeth's

#### Dr. D. Y. Patil Biotechnology & Bioinformatics Institute

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# Dr. Swapnil Chandrakant Gaikwad



Designation: Associate Professor,

Dr. D.Y. Patil Biotechnology & Bioinformatics Institute,

Dr. D.Y. Patil Vidyapeeth, Pune

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# **EDUCATIONAL OUALIFICATIONS:**

- Ph.D.in Biotechnology on "Fusarium- Mediated SynthesisofSilverNanoparticles for the Development of Novel Antimicrobials" under supervision of Professor (Dr.) M.K. Rai from Department of Biotechnology SGB Amravati University, Amravati, India.
- **Post-Graduate (M.Sc.)** in Biotechnology from SGB Amravati University, Amravati in the year 2008.
- **Graduation** with Microbiology, Botany and Chemistry from SGB Amravti University, Amravati in the year 2006.
- **H.S.C.** from Amravati Board in the year 2003.
- S.S.C. from Amravati Board in the year 2001.

#### **POSTDOCTORAL TRAINING:**

• **Post-Doctoral** fellow at Department of Biotechnology Engineering School of Lorena, University of Sao Paulo (EEL-USP) Brazil.

## **EMPLOYMENT EXPERIENCE:**

- **Associate Professor** Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D Y Patil Vidyapeeth, Tathawade, Pune (2023-till date)
- **Assistant Professor,** Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D Y Patil Vidyapeeth, Tathawade, Pune (2016-2023)
- JRF at Department of Biotechnology, SGB Amravati University funded by RGSTC (Maharashtra Govt.), Mumbai.

#### **FIELD OF SPECIALIZATION:**

Nanobiotechnology, Nanoantimicrobials, Green synthesis of nanoparticles and its applications.

# **Specific Areas of Research Interest:**

- Synthesis and surface modification of Nanoparticles.
- Application of Bioengineered nanoparticles in the field of Medicine and Environment.

## **AWARDS/HONOURS/MEMBERSHIP OF VARIOUS ACADEMIC BODIES:**

#### **Awards/Achievements:**

- Received World Scientist and University Ranking in AD Scientific Index 2021-2025.
- Recognized Innovation Ambassador by MoE's Innovation Cell and AICTE.
- Recognition and Felicitation by Dr. D. Y. Patil Vidyapeeth for outstanding contribution in research on the occasion of Teacher's Day 5<sup>th</sup> September 2022.
- International Travel Grant 2012 from DST, New Delhi for presentation in International conference Colloids and Nanomaterials 2012, at Amsterdam, The Netherlands.
- First prize in presentation on "Optimization of Physical Parameters for Large Scale Mycosynthesis of Silver Nanoparticles" in International Conference on Mycology and Plant Pathology Biotechnological approaches (ICMPB 2012). February 27-29, 2012 Organized by Department of Botany, Banaras Hindu University, Varanasi (UP).

#### **Fellowships:**

• RGSTC (Maharashtra Govt.), Mumbai

#### **ACADEMIC ACTIVITIES:**

#### **Teaching & Research Experience:**

• **Assistant Professor,** Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D Y Patil Vidyapeeth, Tathawade, Pune (2016-2023) (7 years)

- **Associate Professor** Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D Y Patil Vidyapeeth, Tathawade, Pune (2023-till date)
- **Post-Doctoral** research experience on project "Nanoparticles Mediated Enzymatic Hydrolysis of Lignocellulosic Residues for Clean Sugar Production" at Biotechnology Department Engineering School of Lorena, University of Sao Paulo (EEL-USP) Brazil.
- JRF at Department of Biotechnology, SGB Amravati University funded by RGSTC (Maharashtra Govt.), Mumbai.
- JRF INDO-BRAZIL Project. The project was sponsored in collaboration with DST-CNPq.

#### No. of B. Tech, M. Tech., M.Sc., Ph. D. students Guided:

- 1. Ph.D. students (ongoing)- 4
- 2. M.Sc, M.Tech and B. Tech: 15

# No. of Funded/Non-Funded (as Fellow) Research Projects Completed and in Hand:

# (A) Projects awarded as Principal Investigator by DPU:

1. Characterization of Nanostructured polymers to develop scaffold for tissue engineering (Amount sanctioned: 2 lakhs, (2018-2020).

#### Editorial Board Member

- Frontiers in Microbiology- Review Editor
- Nanotechnology, Science and Applications, Dove Medical Press ltd. UK
- Scientific Report, Springer-Nature
- Biocatalysis and Agricultural Biotechnology, Elsevier
- Biomass Conversion and Biorefinery, Springer-Nature
- Journal of Biomolecular Structure & Dynamics
- Medical Hypotheses- Elsevier

# In Charge/Member in Different Internal Committees (Administrative/Research / Academic Committees:

- IQAC and NAAC Coordinator
- Member, Curriculum Design and Monitoring committee
- Member, Institutional Development Committee
- Member, Scientific Advisory Committee
- Member, Committee for Implementation of Value Added Courses
- Member, ISO Internal Committee
- Member, NSS cell, Dr. D. Y. Patil Biotechnology and Bioinformatics Institute
- Member, Institute Innovation Cell
- Member, National Board of Accreditation (NBA) Committee

# **RESEARCH PAPERS IN PEER REVIEWED JOURNALS:**

#### (a) Publications (Original Paper):

- 1. Deshmukh, F., Kiran, K., Pawar, S.P., Nawani, N., Golinska, P., Gade, A., Ingle, P., Gaikwad, S.\* (2025). Photocatalytic Dye Degradation Catalyzed by *Achyranthes aspera* (Apamarg) Mediated Biofabricated Magnetic Iron Oxide Nanoparticles. *Sustainable Chemistry for the Environment* (Accepted).
- 2. Lokhande, K., Tiwari, A., Gaikwad, S., Kore, S., Nawani, N., Wani, M., Swamy, V.K., Pawar, S. (2023). Computational docking investigation of phytocompounds from bergamot essential oil against Serratia marcescens protease and FabI: Alternative pharmacological strategy. *Computational Biology and Chemistry*. DOI:10.1016/j.compbiolchem.2023.107829. (Impact Factor 3.7)
- 3. Sangeet, S., Pawar, S., Nawani, N., Junnarkar, M., Gaikwad, S. (2022) Computational Approach to Attenuate Virulence of *Pseudomonas aeruginosa* through Bioinspired Silver Nanoparticles. *3 Biotech*. DOI: 10.1007/s13205-022-03367-0. (Impact Factor 2.8).
- 4. Gaikwad, S., Birla, S., Ingle, A.P., Gade, A., Ingle, P., Golińska, P., Rai, M. K. (2022). Superior in vivo Wound-Healing Activity of Mycosynthesized Silver Nanogel on Different Wound Models in Rat. *Frontiers in Microbiology* 13: 881404.1830 (Impact Factor 6.01)
- 5. Rai, M.K., Bonde, S., Golinska, P., Trzcińska-Wencel, J., Gade, A., Abd-Elsalam, K., Shende, S., Gaikwad, S., Ingle, A. (2021). *Fusarium* as a Novel Fungus for the Synthesis of Nanoparticles: Mechanism and Applications, *Journal of Fungi*, 7(2); 139. (Impact Factor 4.6)
- 6. Mansuri, A., Lokhande, k., Kore, S., Gaikwad, S., Nawani N., Swamy, K.V., Junnarkar, M., Pawar, S. (2020) Antioxidant, anti-quorum sensing, biofilm inhibitory activities and chemical composition of Patchouli essential oil: in vitro and *in silico* approach. *Journal of Biomolecular Structure and Dynamics*. 40(1); 154-165 https://doi.org/10.1080/07391102.2020.1810124. (Impact Factor 3.5)
- 7. Gaikwad, S., Ingle, A., da Silva, S., Rai, M. (2019). A New and Cost-effective Immobilized Nanoparticles-Mediated Enzymatic Hydrolysis of Cellulose for Clean Sugar Production. *Current Nanoscience*. 15 (3), 296-303. (Impact Factor 1.34).
- 8. Khan, S., Singh, S., Gaikwad, S.\*, Nawani N. Junnarkar, M., Pawar S. (2019). Optimization of process parameters for the synthesis of silver nanoparticles from Piper betle leaf aqueous extract, and evaluation of their antiphytofungal activity. *Environmental Science and Pollution Research* 27,7221–27233 (Impact Factor 5)
- 9. Kratošová, G., Holišová, V., Konvičková, Z., Ingle, A., Gaikwad, S., Škrlová, K., Prokop, A., Rai, M., Plachá, D (2019) From biotechnology principles to functional and low-cost metallic bionanocatalysts. *Biotechnology Advances* 37 (1), 154-176 (Impact Factor 11.4).
- 10. Junnarkar, M., Pawar, S., Gaikwad, S., Mandal, A., Jass, J., Nawani, N. (2019). Probiotic potential of lactic acid bacteria from fresh vegetables: Application in food preservation. *Indian Journal of Experimental Biology*, 57, 825-838. (Impact Factor 0.9)
- 11. Shaha, S., Gaikwad, S., Kulshrestha, S., Vaidya, V., Nawani, N., Pawar, S. (2019). Biofilm inhibition and anti-quorum sensing activity of phytosynthesized silver nanoparticles against nosocomial pathogen Pseudomonas aeruginosa. *Biofouling*, 35(1), 34-49, DOI: 10.1080/08927014.2018.1563686 (Impact Factor 2.7)

- 12. Pandit, R., Gaikwad, S., Rai, M. (2017) Biogenic fabrication of copper nanoparticles, copper bioconjugates and *In vitro* assessment of antimicrobial and antioxidant activity. *IET Nanobiotechnology*. 11 (5), 568-575 10.1049/iet-nbt.2016.0165. (Impact Factor 1.5)
- 13.Rai, M., Pandit, R., Gaikwad, S., Kovics, G. (2016) Antimicrobial Peptides as a Natural Biopreservative to Enhance the Shelf life of Food. *Journal of Food Science Technology*. 53 (9), 3381-3394 (Impact Factor 2.2)
- 14.Pinjarkar, H., Gaikwad, S., Ingle, A.P., Gade, A.K., Rai, M.K. (2016) Phycofabrication of Silver Nanoparticles and their antibacterial activity against Human Pathogens. *Advanced Materials Letters* 7(12):1010-1014. DOI: 10.5185/amlett.2016.6269.
- 15.Rai, M.K., Santos, J.C., Soler, M.F., Marcelino, P.RF., Brumano, L.P., Ingle, A.P. Gaikwad, S., Gade, A.K., Silva, S.S. (2016). Strategic Role of Nanotechnology for Production of Bioethanol and Biodiesel. *Nanotechnology Reviews*. 5(2): 231-250 (Impact factor 1.2).
- 16.Bhople, S., Deshmukh, S., Gaikwad, S., Bonde, S., Gade, A., Sen, S., Brezinska, A., Dahm, H., Rai, M. (2016). Myxobacteria -Mediated Synthesis of Silver Nanoparticles and Their Impregnation in Wrapping Paper used for Enhancing Shelf-life of Apple. *IET Nanobiotechnology*. 10 (6), 389-394 DOI:10.1049/iet-nbt.2015.0111. (Impact Factor1.5).
- 17. Tiwari, N., Pandit, R., Gaikwad, S., Gade, A. Rai M. (2016). Biosynthesis of Zinc Oxide Nanoparticles by petals extract of Rosa indica L., its formulation as nail paint and evaluation of antifungal activity against fungi causing onychomycosis. *IET Nanobiotechnology*. 11 (2), 205-211 (Impact Factor 1.5).
- 18. Soares, LCSR., Chandel, A.K., Pagnocca, F.C., Gaikwad, S.C., Rai, M.K., Silva, S.S. (2016). Screening of Yeasts for Selection of Potential Strains and Their Utilization for *In Situ* Microbial Detoxification (ISMD) of Sugarcane Bagasse Hemicellulosic Hydrolysate. *Indian Journal of Microbiology*. 56(2): 172-18110.1007/s12088-016-0573-9 (Impact Factor 0.9)
- 19. Mane, PN., Moharil, MP., Satpute, NS., Thakare, SM., Giri, GK., Gaikwad, S.C., Gade, AK., Rai, MK. Storage Stability and Performance of Aqueous and Dry Formulations of *Helicoverpa armigera* Nuclear Polyhedrosis Virus. *Journal of Biological Control*, 30(1), 34-39.
- 20. Potara, M., Bawaskar, M., Simon, T., Gaikwad, S., Licarete, E., Ingle, A., Banciu, M., Vulpoi, A., Astilean, S., Rai, M. (2015) Biosynthesized silver nanoparticles performing as biogenic SERS-nanotags for investigation of C26 colon carcinoma cells. *Colloids and Surfaces B: Biointerfaces*. 133:296-303. (Impact Factor 4.1)
- 21.Rai, M.K., Ingle, A.P., Gaikwad, S.C., Padovani, F.H., Alves, M. (2015). The role of nanotechnology in control of human diseases: Perspectives in ocular surface diseases. *Critical Reviews in Biotechnology*. 36 (5), 777-787 DOI:10.3109/07388551.2015.1036002 (Impact Factor 7.8).
- 22. Nagaonkar, D., Gaikwad, S., Rai, M. (2015). *Catharanthus roseus* leaf-extract synthesized chitosan nanoparticles for controlled in vitro release of chloramphenicol and ketoconazole. *Colloids and Polymer Science*. 293 (5), 1465-1473 DOI 10.1007/s00396-015-3538-3 (IF- 2.41).
- 23.Rai, M., Ingle, A., Gaikwad, S., Gupta, I., Gade, A., da Silva, S. (2015). Nanotechnology Based Antiinfectives to Fight Microbial Intrusions. *Journal of Applied Microbiology*. 120 (3), 527-542DOI: 10.1111/jam.13010 (Impact Factor 2.4)
- 24.Rai, M.K. Gaikwad, S.C., Nagaonkar, D., and dos Santos, C.A. (2015). Current Advances in Antimicrobial potential of *Ganoderma* spp. against human pathogenic microorganisms. *International Journal of Medicinal Mushroom*. 17(10): 921–932(Impact Factor1.1).

- 25.Rai, M., Pandit,R., Gaikwad, S., Yadav, A. and Gade, A. (2015). Potential Applications of Curcumin and Curcumin-nanoparticles: From Traditional Therapeutics to Modern Nanomedicine. *Nanotechnology Reviews*. 4 (2), 161-172 DOI: 10.1515/hsz-2015-0001(online published). (Impact Factor 1.2)
- 26. Pandit, R.S., Gaikwad, S.C., Agarkar, G.A., Gade, A.K. and Rai, M.K. (2015). Curcumin Nanoparticles: Physico-chemical Fabrication and its *in vitro* Efficacy Against Human Pathogens. *3 Biotech*. 5 (6), 991-997.
- 27. Mane, P.N., Satpute, N.S., Moharil, M.P. Thakare, S.M., Gaikwad, S.C., Gade, A.K. Rai, M.K. (2015). Potency of Silver Nanoparticles (SNPs) as UV protectant for HaNPV. *Journal of Biological Control*. 29 (2), 94-97.
- 28. Kuralkar, M., Ingle, A., Gaikwad, S., Gade, A., Rai, M. (2014). Gold nanoparticles: novel catalyst for the preparation of direct methanol fuel cell. *IET Nanobiotechnology*. 9 (2), 66-70 DOI.10.1049/iet-nbt.2014.0004 (Impact Factor 1.7).
- 29. Wrótniak–Drzewiecka, W., Gaikwad, S., Laskowski, D., Dahm, H., Niedojadło, J., Gade, A. and Rai, M. (2014). Novel Approach towards Synthesis of Silver Nanoparticles from *Myxococcusvirescens* and their Lethality on Pathogenic Bacterial Cells. *Austin Journal of Biotechnology and Bioengineering*, 1(1), 7.
- 30. Gaikwad, S., Ingle, A., Gade, A., Rai, M., Falanga, A., Incoronato, N., Russo, L., Galdiero, S. and Galdiero, M. (2013). Antiviral activity of mycosynthesized silver nanoparticles against Herpes Simplex virus and Human Parainfluenza Virus Type 3. *International Journal of Nanomedicine*.8, 4303–4314 (Impact factor 4.19).
- 31. Gaikwad, S., Birla, S., Ingle, A., Gade, A., Marcato, M., Rai, M. and Duran, N. (2013). Screening of different *Fusarium* species to select potential species for the synthesis of silver nanoparticles. *Journal of Brazilian Chemical Society*.24 (12), 1974-1982 (Impact Factor 1.34).
- 32.Bansod, S.,Bonde, S.,Tiwari, V.,Bawaskar, M., Deshmukh, S.,Gaikwad, S., Gade, A. and Rai.M.(2013).Bioconjugation of gold and silver nanoparticles synthesized by *Fusarium oxysporum* and their use in rapid identification of Candida species by using Bioconjugate-Nano-PCR. *Journal of Biomedical Nanotechnology*.9(12), 1962-1671(Impact Factor 7.5).
- 33.Birla, S., Gaikwad, S., Gade, A.,Rai, M. (2013). Rapid synthesis of silver nanoparticles from *Fusarium oxysporum* by optimizing Physico-cultural conditions. *The Scientific World Journal*, Volume 2013, Article ID 796018, 12 pages http://dx.doi.org/10.1155/2013/796018 (Impact Factor 1.2).
- 34.Gade, A., Gaikwad, S., Duran, N. and Rai, M.(2014). Green Synthesis of silver nanoparticles by *Phomaglomerata.Micron.*59, 52-59 (Impact Factor 2).
- 35. Gade, A., Gaikwad, S., Durán, N., Rai, M. (2013). Screening of different species of Phoma for Synthesis of Silver nanoparticles. *Biotechnology and Applied Biochemistry*, 60(5), 482-493 (Impact Factor 1.3).
- 36.Kanhed, P., Birla, S., Gaikwad, S., Gade, A., Seabra, A., Rubilar, O., Duran, N. and Rai, M. (2013). *In vitro* antifungal efficacy of copper nanoparticles against selected crop pathogenic fungi. *Material Letters*, 115, 13-17 (Impact Factor 2.26).
- 37. Gupta, A., Bonde, S., Gaikwad, S., Ingle, A., Gade, A. and Rai, M. (2013). *Lawsonia inermis*-mediated Synthesis of Silver Nanoparticles: Activity against human pathogenic Fungi and bacteria with special reference to formulation of antimicrobial nanogel. *IET Nanobiotechnology*, 8(3), 172 178, doi.10.1049/iet-nbt.2013.0015 (Impact Factor 1.7).
- 38. Joshi, P., Bonde, S., Gaikwad, S., Gade, A., Abd-Elsalam, K. and Rai, M. (2013). Comparative Studies

- on Synthesis of Silver Nanoparticles by Fusarium oxysporum and Macrophomina phaseolina and Its Efficacy Against Bacteria and Malassezia furfur. Journal of Bionanoscience, 7(4), 378-385.
- 39.Rai, M., Gade, A., Gaikwad, S., Marcato, P. and Duran, N. (2012). Biomedical applications of Nanobiosensors: The state-of-the-art. *Journal of Brazilian Chemical Society* 23(1): 14-24 (Impact Factor 1.34).
- 40. Sable, S., Gaikwad, S., Bonde, S., Gade, A. and Rai, M. (2012). Phytofabrication Of Silver Nanoparticles By Using Aquatic Plant *Hydrilla verticilata*. *NUSANTARA Bioscience*, 6: 45-49.
- 41.Rai, M., Karwa, A. and Gaikwad, S. (2011). Mycosynthesis of silver nanoparticles using *Ganoderma lucidum* Karst. *International journal of medical mushrooms*, 13 (5): 483–491(Impact Factor 0.9).
- 42. Gudadhe, J., Bonde, S., Gaikwad, S., Gade, A. and Rai, M. (2011). *Phoma glomerata*: A novel agent for fabrication of iron oxide nanoparticles. *Journal of Bionanoscience*, 5: 138–142.
- 43.Gade, A., Gaikwad, S., Tiwari, V., Yadav, A., Ingle, A. and Mahendra Rai. (2010). Biofabrication of Silver Nanoparticles by *Opuntia ficus-indica*: *In vitro* Antibacterial Activity and Study of the Mechanism Involved in the Synthesis. *Current Nanoscience*, 6: 370-375 (Impact Factor 1.8).
- 44. Bawaskar, M., Gaikwad, S., Ingle, A., Rathod, D., Gade, A., Duran, N. Marcato, P. and Rai, M. (2010). A New Report on Mycosynthesis of Silver Nanoparticles by *Fusarium culmorum*. *Current Nanoscience*, 6: 376-380 (Impact Factor 1.8).

#### (b) Book Chapter:

- 1. Rai, M., Ingle, A., Gupta, I., Gaikwad, S., Gade, A., Rubilar, O., Duran, N. Cyto-Genoand Ecotoxicity of Copper Nanoparticles. Nanotoxicology: In Nanotoxicology Nanomedicine and Nanotoxicology (Eds. Duran, N., Guterres, S., Alves, O) Springer, New York, 2014, pp 325-345.
- 2. Rai, M., Ingle, A., Gaikwad, S., Gupta, I., Yadav, A., Gade, A. and Duran, N.Fungi: Myconanofactory, Mycoremediation and Medicine: In Fungi: Applications and Management Strategies (Eds. S.K. Deshmukh) CRC press, 2015, pp 201-219.
- 3. Gupta, I., Gaikwad, S., Ingle, A., Kon, K., Duran, N., Rai, M. Nanotoxicity: a Mechanistic Approach. In Biological and Pharmaceutical Applications of Nanomaterials (Ed Prokopovich P.) CRC Press 2015, Pages 393–410.
- Antunes, FAF., Santos, JC., Cunha, MAA., Sarrouh, B., Brumano, LP., Milessi, TSS., Terán-Hilares, R., Peres, GFD., Dussán, KJ., Silva, DBV., Dalli, SS., Gaikwad, S., da Silva, SS. Biotechnological Production of Xylitol from Biomass: In Biofuels and Biorefineries (Eds. Profs. Fang, Smith and Qi). Springer International Publishing, 2017.
- 5. Rai, M. K., Ingle, A.P., Gaikwad, S., Dussa'n K.M, and da Silva, S.S. Role of Nanoparticles in Enzymatic Hydrolysis of Lignocellulose in Ethanol: In Nanotechnology for Bioenergy and Biofuel Production (Eds Rai, Mahendra and da Silva, Silvio Silvério) Springer International Publishing 2017.
- 6. Antunes, FAF., Gaikwad, S. C., Ingle, A.P., Pandit, R., dos Santos, J.C., Rai, M.K and da Silva, S.S. Bioenergy and Biofuels: Nanotechnological solutions for sustainable production: In Nanotechnology for Bioenergy and Biofuel Production (Eds Rai, Mahendra and da Silva, Silvio Silvério) Springer International Publishing 2017. (Accepted)

#### (b) Conferences/Workshops attended/poster presented:

- 2025 IEEE 1st Global Conference on Cognitive Computing and Communication Technology (GC4T25)- 4<sup>th</sup> – 5<sup>th</sup> April 2025, organized by IEEE, Dr. D. Y. Patil School of Science and Technology, Pune, Title- Biofabricated silver nanoparticles from Trachyspermum Ammi (Ajwain) leaves extract: Quorum sensing and biofilm inhibition
- 2. International Conference on Colloids and Nanomaterials, 15th 17th July 2012, organized by Elsevier at

- Amsterdam, The Netherlands. Presentation Title- Mycosynthesized Silver Nanoparticles as Novel Antimicrobials against Human Pathogens.
- 3. International Conference on Mycology and Plant Pathology Biotechnological approaches (ICMPB 2012) February 27<sup>th</sup>-29<sup>th</sup>, 2012 Organized by Department of Botany, Banaras Hindu University, Varanasi (UP) India. Presentation Title- Optimization of Physical Parameters for Large Scale Mycosynthesis of Silver Nanoparticles (First prize for Poster).
- 4. International Workshop on Advances in Disinfection Technologies February 9<sup>th</sup>, 2011 organized by National Environmental Engineering Research Institute, Nagpur (MS) India. PresentationTitle-Mycosynthesis of Silver Nanoparticles for management of water born diseases.
- International Conference on Nanotechnology & Medical Science (ICNAMS-2010) October 21-23, 2010
  organized by D.Y.Patil University, Kolhapur (MS) India.PresentationTitle- Mycosynthesis of Silver
  Nanoparticles by *Phomabetae*.
- 6. Indo-Italian Workshop on Bacteria & Fungi For Environmental Sustainability November 29-30 & December 1, 2010 organized by Amity Institute of Microbial Technology Amity University, Noida (UP) India. Presentation Title- Mycosynthesis of Silver Nanoparticles and there Interaction with Human Pathogenic Bacteria.
- 7. Seminar on Recent Advances in Separation Technology, 24<sup>th</sup> -25<sup>th</sup> January 2019, organized by Sinhgad College of Engineering, Pune.
- 8. Conference on Trend in Interdisciplinary Research in Health Sciences, 27<sup>th</sup> August 2019, organized by Dr. D.Y. Patil Vidyapeeth Pune (Deemed to be University).
- 9. Workshop on Hydroponics Vegetable Cultivation, 14<sup>th</sup> to 15<sup>th</sup> September 2019, organized by APG Learning and Sakal Media, Pune.
- 10. TOT Workshop on Curriculum Mapping, 22<sup>nd</sup> October 2018 organized by Dr. D.Y. Patil Vidyapeeth Pune (Deemed to be University).
- 11. II Workshop on Bioenergy, Renewable Energy and Green Building March 17<sup>th</sup> 2016 organized by Instituto de PesquisaemBioenergia (IPBEN) and UniversidadeEstadualPaulista (unesp), Guaratingueta, Brazil. Title- FromBiomass to Bioproducts: The use of Nanotechnology.
- 12. Two week Training Course on Techniques in Biotechnology. Biotechnology in Laboratory Theory and Practice, March 3-16, 2008. Organized by Department of Biotechnology SGB Amravati University, Amravati India.
- 13. National Seminar on Trends in Nanobiotechnology, January 4<sup>th</sup> 2013 organized by Department of Biotechnology SGB Amravati University, Amravati India. Presentation topic- Mycofabrication of silver nanoparticles: Novel antimicrobials against human pathogens.
- 14. National Conference on Current Advances in Biotechnology and Annual Meeting of Society for Biotechnologist (India), November 25-26, 2013 organized by Department of Biotechnology SGB Amravati University, Amravati and Society for Biotechnologist (India). Presentation topic- Preparation of Direct Methanol fuel cell (DMFC) by using Gold Nanoparticles as catalyst.