### **CURRICULUM VITAE**

1) Name : Dr. Sunil Trimbak Pawar

2) Educational Qualification : M.Sc. Ph.D. (Microbiology)

3) **Present Designation** : Professor and Head, Department of

Microbiology

**4) Date of Birth** : 28<sup>th</sup> May, 1968

**5) Contact No.** : 09423251465

6) Email ID : suniltttpawar@yahoo.com.in

**7) Date of Appointment** : 01/08/1991

**8) Teaching Experience** : 32 Years

9) Date of joining in present colleg: 01/08/1991

## **Educational Qualification:**

Sr. No.	Examination Passed	University/ Board	Year of Passing	Subject(s)	Class/ Grade
1.	B.Sc. Microbiology	University: Shivaji University, Kolhapur, M.S., India	1986 – 1989	Microbiology	First class with distinction 70%
2.	M.Sc. Microbiology	University: Shivaji University, Kolhapur, M.S., India	1989 – 1991	Microbiology	First class
3.	Ph.D. Microbiology	University: North Maharashtra University, Jalgaon, M. S., India	2004 – 2009	Microbiology	Awarded

## 4) Total Research Publications : 16

#### a. M.Phil. / Ph.D./Research

Sr. No.	M.Phil./ Ph. D. Thesis Title	Name of The Univ.	Year of award	Name of Guide
1.	Studies on ecological and biotechnological aspects of halotolerant	North Maharashtra University, Jalgaon, M. S., India Place of work: School Of Life Sciences,	2004 – 2009	Dr. Pravin R. Puranik

cyanobacteria		

### b. Book:

Sr. No.	Title of Book	Year of publication	ISBN	Name & Place of Publisher
		Nil		

# c. Chapter in Book:

Sr. No.	Title of Book & Name of Editor	Title of the Chapter	Year of publication	ISBN	Name & Place of Publisher
			Nil		

# d. Research Paper:

Sr. No.	Title of the Paper	Name of Journal	Month and Year of publication	ISBN	UGC. No./Impact Factor/ Citation Details
1	Screening of Halotolerant Cyanobacteria for antifungal activity.	World journal of Microbiology and Biotechnology	2008	-	24(7): 1019- 1025 (IF 1.5,Citation-15)
2	Ecology and Biodiversity of cyanobacteria from Eco. Env. & Cons. saline soils.		2013	-	19(2): 437-444
3	Isolation, Screening and optimization of exopolysaccharide producing bacterium from saline soil.	J. Microbiol. Biotech. Res.	2013	-	3 (3):24-31 (Citation-14)

4	C-phycocyanin production by halotolerant cyanobacteria.	Phykos	2014	-	44(1):25-35. (Citation-1)
5	Screening and characterization of Pesticide Degrading cyanobacteria from Pesticide contaminated Agricultural Soil.	Phykos	2015	-	45(1):85-91. (Citation-1)
6	Screening and optimization of indole 3 acetic acid producing non-heterocystous cyanobacteria isolated from saline soil.	Academic Journal of Biosciences	2016		4(9); 738-744
7	Screening of silver nanoparticles producing Cyanobacteria and its characterization.	Int. Res. J. of Science and Engneering, Special issue	2017	-	A1: 44-54
8	Studies of Plant Growth Promoting Rhizobacterial Inoculants on Sugarcane in Saline Soil.	International Journal of Pharmacy and Biological Sciences	February 2019	-	Volume 9, Special Issue 2- ICESMT 2019, 168-178,
9	Isolation, Characterization and Identification of Probiotic Lactic Acid Bacteria and Bacteriocin Productio.	International Journal of Pharmacy and Biological Sciences	2019,	-	Volume 9, Special Issue 2- ICESMT, 2019, 36-43

10	Augmentation of Halotolerant Cyanobacteria to Restore Soil Properties and Promote the Plant Growth in Saline Soil.	International Journal of Pharmacy and Biological Sciences	2019	-	Volume 9, Special Issue 2- ICESMT, 2019, 19-35.
11	Extended and Pandrug resistance in Klebsiella pneumoniae due to Carbapenemase and Extended Spectrum beta-lactamase enzymes.	Journal of medical science and clinical research,	2019	-	Volume 7 issue12.
12	Extracellular Biosynthesis of Silver Nanoparticles using Bacterial isolate from saline soil.	Journal of Nanoscience and Technology	2020	-	

13	Isolation, Characteriz ation and identification of exopolysaccharide producing bacteria from industrial waste water as a bioflocculant.	International Research Journal of Modernization in Engineering Technology and Science.	06/June-2021	-	Volume:03/Issue :06/June-2021, 3393-3401
14	Studies of multidrug resistant Klebsiella pneumoniae.	Asian journal of research in chemistry and pharmaceutical sciences	2021	-	vol.9 issue(1) 2021, 20-26.
15	Antibiogram of Acinetobacter species isolated from various clinical samples.	Asian journal of research in chemistry and pharmaceutical sciences	2021	-	vol.9 issue(1) 2021, 41-51
16	Composting of municipal organic solid waste and biological way for odor removal- A review. Bulletin of Environment.	Pharmacology and life Sciences	January 2023	-	18-27.online ISSN 2277-1808

# e.Research Project:

Sr. No.	Name of Funding Agency	Project Title	Funds Received	Month and Year of sanction	Duration of the Project	Status of Project
1	Tuljaram Chaturchand College, Baramati, Amount: Rs. 2, 00, 000/-,	"Cyanobacterial Bioagumentation of pesticide contaminated soil"	2,00,000/-	(2008 – January 2010),	3 Year	Completed

	(BCUD, University of Pune, Pune).					
2.	(UGC, New Delhi).	"Algal soil- acclimatizers for cultivation of plantlets in saline soil"	8,70,807/-	(March 2011 – February 2014),	3 Year	Completed
3.	(DBT, New Delhi)	"Bioremediation of salt affected soils using halotolerant PGPR and cyanobacterial inoculants"	46.15 Lacks,	(2013- 2016)	3 Year	Completed

# f. Papers presented in Seminar / Conference:

Sr. No.	Name of the Conference/ Seminar	Title of the paper	Date	Level (State/ National/ International)	Name of the Organizer
1	National Conference on "Futuristic Trends in Biotechnology"	"Biotechnological potentials of salt tolerant unicellular cyanobacterium, Synechococcus sp. isolated from sulfur spring"	Nov 19-21, 2005	National	Vellore Institute of Technology, Vellore, T.N
2	National Conference on Recent Trends in Environmental Science"	Halotolerant Cyanobacterial Biodiversity of Saline Soils and its Applications in Biotechnology	Feb 5-6, 2006	National	ASC College, Chalisgaon
3	First Avishkar Interuniversity Competition	"Biopotentials of Halotolerant Cyanobacteria".	15-16 Dec.2006	Zonal	North Maharashtra University, Jalgaon. (2 <sup>nd</sup> Prize Winner)
4	State level conference on Biotechnology for Rural Development.	Bioremediation of saline soil by halotolerant cyanobacteria.	Feb: 20- 21,2009	State level	Adarsh Mahavidyalaya, Omerga, Dist. Osmanabad (1 <sup>st</sup> Prize winner)

	1	T			<del>                                     </del>
5	Innovation-2009- 10, A Regional teacher's conference Organized by BCUD, University of Pune, Pune.	"Cyanobacterial Bioagumentation of pesticide contaminated siols."	Dec.19-20, 2009	Zonal	Vidya Prathisthan's Arts Commerce and Science college, Baramati Dist Pune
9	North Maharashtra University at the First Avishkar Interuniversity	Maharashtra University at the First Avishkar  "Biopotentials of Halotolerant Cvanobacteria"		State level	Sant Tukdoji Maharaj Nagpur University, Nagpur.
10	C.V. Raman Memorial Seminar.	emorial purification of Cyanobacterial 28 <sup>th</sup> Feb		Zonal	North Maharashtra University, (1 <sup>st</sup> prize winner)
11	7 <sup>th</sup> Asia-Pacific International Conference on Algal Biotechnology"	Characterization of Extracellular polysaccharide produced by halotolerant Cyanobacteria.	Dec.14,2009	International Conference	University of Delhi, India
12	Presented a paper, in "New horizon in applied sciences".	New horizon in applied sciences".	Sept. 14-15, 2012	State level	Department of Chemistry, Sharadchandra Pawar Mahavidyalaya, Lonand
13	National Conference on Recent Developments in Mathematics and Statistics.	Recent Developments in Mathematics and Statistics	Feb, 14-16, 2013	National	Tuljaram Chaturchand College, Baramati,
14	National Conference on Bioengineering	Bioengineering	Mar 15-16, 2013	National	College of Engineering, Pune,

15	UGC sponsored International Conference.	Emerging horizons in Biochemical Sciences and Nanomaterials	28 <sup>th</sup> – 30 <sup>th</sup> Nov. 2013	International	Shri Shivaji Mahavidyalaya Barshi. Dist Solapur M.S	
16	UGC sponsored National Conferenc.	Modern methods in detection, Identification and Quantification of Microorganisms	18 <sup>th</sup> Feb. 2014	National Conference	Bharathi Vidyapeeth University, Yashwantrao Mohite college, Pune.	
17	Two days state level symposium cum workshop.	symposium Production of 17 <sup>th</sup> -18 <sup>th</sup>		State level	Vidya Prathisthan's Arts, Science and Commerce College, Baramati. Dist Pune.	
18	International conference on "Microalgal and cyanobacterial biotechnology MACB-2016" organized by National Facility for Marine Cyanobacteria, Bharathidasan	"Cyanobacterial inoculants for sustainable agriculture development"	30 Aug –1 Sept 2016	International	University, Tiruchirappalli, Tamil Nadu, India	
19	National Conference on "Recent trends and opportunities in life science".	"Cyanobacteria: Laboratory methods & Applications in Biotechnology"	24-25 January 2016)	National	Department of Botany, Microbiology and Zoology, PDEA's Waghire College, Saswad.	
20	National Conference on Recent trends in Biotechnology and Biodiversity (NCBB-2017)	"Studies of halotolerant PGPR inoculants on sugarcane grown in saline soil"	22-23 September 2017	National	Shree Shivaji Science College, Amravati.	
21	International conference on Applied Nanotechnology and Nanoscience Screening of silver nanoparticles producing Cyanobacteria and its characterization		7-9 Dec 2017	International	T C College Baramati and Nano and Molecular society (nms)	

		India

g. **Patents published/Register:** Puranik P.R., Deshmukh D.V., Pandav P.V., Patel V.E., **Pawar S.T.** and Puranik K.P. (2010) Natural blue pigment and process for producing the same. (Indian Patent Appl. No. 689/MUM/2010 dt 15.03.2010).

### 12) Research Guidance:

### a) Guide ship Details

Sr.	M.Phil./ Ph.D.	Name of University	Month & Year of	No. of Research Scholars	
No.	Guide	·	recognition	Completed	Perusing
1	Prof. Dr. S. T. Pawar	North Maharashtra University, Jalgaon- 425001, Maharashtra, India	12 <sup>th</sup> November 2013	01	NIL
2	Prof. Dr. S. T. Pawar	Solapur University, Solapur-413255, Maharashtra, India	06 <sup>th</sup> May 2014	01	01
3	Prof. Dr. S. T. Pawar	Savitribai Phule Pune University, Pune- 411007, Maharashtra, India	23 <sup>rd</sup> April 2015		06

### b) Research Guidance

Sr. No.	Name of Scholar	Name of University	Month and Year Registration	Title of the Research
1	Mr. Amarsinh Arvind Bhosale.	University: North Maharashtra University, Jalgaon-425001, Maharashtra, India	06/05/2013	Topic: Studies on plant growth promoting cyanobacterial inoculants for the development of nursery plantlets in saline soil.  Degree awarded

				march-2018
2	Mrs. Suman Dattatray Jadhav.	University: Solapur University, Solapur- 413255, Maharashtra, India	01/01/2015	Topic: Studies on antibiotic resistance of Klebsiella pneumoniae isolated from clinical samples.  Degree awarded-Aug-2022

# 13) Professional recognition / award/ fellowship etc.

# 14) E-Content Development:

Sr. No.	Title of Content	Level (UG/ PG / ALL)	Platform	Link of E-Content
1	Ribozyme	UG	You Tube	https://youtu.be/0oQGXsdgKwo?si=lO0LH5lyiAMYpNG5

# 15) Work Experience on Academic Bodies and other:

Sr. No.	Designation/ Position	Duration	Name of Institute / University	Details
1	Lecturer (Part Time)	1991-1992	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-
2	Lecturer	1992-1998	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-
3	Senior Lecturer	2003-2006	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-
4	Selection Grade Lecturer	2003-2006	Department of Microbiology, Tuljaram Chaturchand College,	-

			Baramati, Dist- Pune 413102	
5	Head of the Department	Aug 2004- March 2005	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-
6	COC-Coordinator	2003-2005	Clinical Pathology, Microbiology department, T. C. College, Baramati	-
7	On FIP (Faculty Improvement Program)	March 2005- March 2007	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-
8	Reader	Aug 2009- Jan 2010	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-
9	Associate Professor	June 2006- 04/02/2022	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-
10	Post graduate Co- ordinator	JUNE 2007 – MARCH 2014	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-
11	Head of Department	11 Aug 2020 till date	Department of Microbiology, Tuljaram Chaturchand College, Baramati, Dist- Pune 413102	-

# 16) Life Membership of Profession Bodies:

Sr. No.	Name of Professional Body
1.	Life Member of Biotechnological Research Society of India (BRSI).

2.	Life Member of Association of Microbiologist of India (AMI).
3.	Life Member of Microbiologists society of India (MSI).
4.	Life member of Biotechnological Research Society of India (BRSI)
5.	Member of College Development Committee (CDC) at Tuljaram Chaturchand College, Baramati. Autonomous.
6.	Member of Academic council at Tuljaram Chaturchand College, Baramati. Autonomous.
7.	Member of Academic council at Savitribai Phule Pune University, Pune
8.	Chairman of BOS in Microbiology at Tuljaram Chaturchand College, Baramati. Autonomous.
9.	Chairman of BOS in Microbiology at Savitribai Phule Pune University, Pune

### 17) Any other Attainment:

- Participated a workshop on "Research Techniques in Cyanobacteriology and Bioinformatics Techniques" organized by National Facility for Marine Cyanobacteria and Bioinformatics Centre, Bharatthidasan University, Tiruchirappalli, Tamil Nadu.
- Participated in the First INDO-US LECTURE SERIES on "Discrete Mathematical Chemistry" jointly sponsored by (IUSSTF) and (DST) held at PES Institute of Technology, Bangalore, India (8-11 Jan 2007).
- Participated in one day workshop on "Academic Performance Indicators with reference to 6<sup>th</sup> pay commission" at M. S. Kakade College, Someshwar, Tal- Baramati, Dist-Pune (19 Sept 2010).
- (11-12 Nov. 2014) participated in the workshop organized by Arti institute of Rural technology for preparation of coal from plant waste material" at Phaltan Dist Satara M.S.
- Participated in Two days workshop on "T. Y. B. Sc. Microbiology Syllabus Discussion, Organized by BCUD and Savitribai Phule Pune University, Pune (30 -31 Jan 2015)
- Participated in one day workshop on ,Restructuring of Syllabus for M Sc. Microbiology NEP2020 jointly organized by BOS in Microbiology, Savitribai Phule Pune university, Department of Microbiology and IQAC, HPT and RYK Science College, Nashik On Monday 17/07/2023.
- (Sept 27-28 2005) Attended the **National seminar** on **Intellectual Property Rights** organized by **North Maharashtra University, Jalgaon**
- (Feb 2-3, 2006) Attended a Seminar on "Integrated Pest Management" organized by School of Life Sciences, NMU, Jalgaon under UGC-SAP
- (Feb.20-March3,2006) Participated in Workshop on Research Techniques in Cyanobacteriolgy and Workshop on Bioinformatics Techniques (WORTIC and WOBIC-2006) conducted by National Facility for Marine Cyanobacteria and Bioinformatics Centre, Bharathidasan University, Tiruchirappalli, T.N.
- 2-4 Nov 2006) **Presented a poster** on Screening of Halotolerant Cyanobacteria for Antifungal Activity.3rd convention of BRSI and **International conference** on Exploring Horizon's in

- Biotechnology: A Global Venture held at **Department of Biosciences**, **Sardar Patel University Vallabh Vidyanager**, and **Gujrat**, **India**.
- 8-11 Jan 2007) Participated in the First INDO-US LECTURE SERIES ON DISCRETE MATHEMATICAL CHEMISTRY jointly sponsored by (IUSSTF) and (DST) held at PES Institute of technology, Bangalore, India.
- 7-8 Feb 2007) **presented a poster**, "Screening of Exopolysaccharide producing Halotolerant Cyanobacteria". **State Level Conference** on Recent Trends In Microbial Biotechnology, held at **R. C. Patel College, Shirpur, Dist-Dhule. M.S.** (2<sup>nd</sup> **Prize winner**
- Screening of halotolerant cyanobacteria for commercially important metabolites, presented as a
  resource person at the National Conference held at Shree Shivaji Mahavidyalaya, Barshi, 12-13
  Feb 2007.
- (19-20 Nov, 2007) **presented a poster**, "Antifungal activity of halotolerant Cyanobacteria". **Innovation-2007**, **BCUD**, **held at**, **University of Pune**, **Pune**.
- 14 Feb 08 -1 Feb 08) **presented a poster**, "Screening of Halotolerant cyanobacteria for commercially important metabolites" held at **Vidya Prathisthan's Arts Commerce and Science college, Baramati Dist Pune**
- (Dec. 2008) **Presented a poster**, "Cyanobacterial Bioagumentation of pesticide contaminated siols." **Innovation-2008**, **A teacher's conference Organized by BCUD**, **University of Pune**, **Pune** held at Vidya Prathisthan's Arts Commerce and Science college, Baramati Dist Pune
- (3<sup>rd</sup> Jan 2009) Attended the UGC–SAP SEMINAR, "Genetically modified crops" at School of Life Sciences, North Maharashtra University, Jalgaon.
- (Feb.25-27,2010) **Presented a poster**, "Screening of halotolerant Cyanobacterial diversity for Phycocyanin Production. "International symposium on Phycological research" Organized by Center of Advanced study in Botany, **Banaras Hindu University**, **Varanasi** University of Delhi, India and Indian Phycological society, new Delhi, India held at University of Delhi, India.
- (Jan.5,2010) **Participated** In one Day Seminar on "Mathematics for Biologists" sponsored by BCUD, University of Pune at M. P. College, Pimpri, Pune.
- Sept.19,2010) Participated In one Day Workshop on "Academic Performance Indicators with reference to sixth pay commission" at M. S. Kakade College, Someshwar, Dist. Pune.
- (Nov.24-26, 2011) Presented a poster, "Ecology and biodiversity of cyanobacteria from saline soil. National conference organized by National academy of science, India (NASI).
   National Symposium on "Sustainable management of Biodiversity using science and technology." At. University of Kerala, Karrivattom, Thiruvananthpuram.
- Feb.3-5, 2012) Chaired the session and presented a poster, "21st. APSI scientists meet 2012 and National Conference on Recent trends in plant sciences" held at Tuljaram Chaturchand College, Baramati
- (Jan.11-12, 2013), **Presented a poster**, at Yashwantrao Chavan Institute of Science, Satara, **National Seminar on "Applied Microbiology for Globe Protection**
- (Feb, 7-8, 2013), **Presented poster**, at Parvatibai Chowgule College of Arts & Science, Margao, Goa, **National Conference on Plant Sciences**.
- (June 25-26,2013) **Participated as a resource person**, at R.Y.K. college Nashik, A two day workshop on "**Detailing of credit and semester syllabus of M.Sc. Microbiology**"

- (18<sup>th</sup> Feb. 2014) Participated In the **UGC sponsored National Conference on "Modern methods in detection, Identification and Quantification of Microorganisms"** organized by Bharathi Vidyapeeth University, Yashwantrao Mohite college, Pune
- (Dec.1-5,2014) **Presented a poster and Chaired a session** at North Maharashtra University, Jalgaon, **at an international conference; Third global sustainable biotech congress, 2014** Dec.1–5,2014 at North Maharashtra University, Jalgaon, India
- (30 31 January 2015) worked as a resource person In Two days workshop on "T. Y. B.Sc. Microbiology Syllabus Discussion" Organized by S. P. Mahila Mahavidyalaya, Shardanagar and BCUD SPP university, Pune.
- (26 Dec. 2015) participated in one day seminar on "Role of IQAC in Institutional Quality Improvement" organized by Tuljaram Chaturchand College Baramati, Dist-Pune M.S.
- (23 rd Jan 2016) Participated and Chaired the Session in one day state level workshop on "Viral Epidemics and Urban Health" At H. V. Desai College Pune.
- (9 10 Feb 2016) Presented a poster entitled, "Studies on PGPR of saline soil." At ITCPB-2016, Two days International conference, organized by Annasaheb Magar Mahavidyalaya Hadapsar, Pune. M.S.
- (11-13 Feb.2016) Presented a poster and Chaired a session in the "International conference on plant sciences and resource management" Organized by T. C. College Baramati, Dist-Pune. M.S.
- (11-12 Jan 2018) Studies of halotolerant PGPR inoculants on soyabean grown in saline soil" Presented a poster in a national seminar on Recent trends in plant sciences and Agricultural Research jointly organized by Zonal Agricultural Research station, Solapur And Daynand college of arts and science, Solapur.
- Studies on PGPR of saline soil 59 th Annual Conference of Association of Microbiologist of (India AMI 2018)
- (7-9 Feb 2019) Chaired a session and worked as a "Organizing secretary" International conference: Empowering Society with Microbial Technology, organized by Department of Microbiology, Tuljaram Chaturchand College, Baramati Dist Pune
- Chaired a session: Microbes for Clean Environment.organised by Taywade College, Mahadulla-Koradi Nagpur and Microbiologist's Society, India
- Chaired a technical session of online oral presentation as a Moderator at International conference on Biotechnology for better tomorrow (ICBBT-2022) organized by Microbiologists society India, Udayana University and VPASC college, Baramation 29-30 th Oct-2022
- **First Prize** for best Paper Presented at State Level conference at Adarsh Mahavidyalaya, Omerga, Dist. Osmanabad, (2009) for paper entitled, "Bioremediation of saline soils using halotolerant cyanobacteria".
- **First Prize** for Paper Presented at C.V. Raman Memorial Seminar held at North Maharashtra University, Jalgaon on 28th Feb 2007, Paper entitled, "Extraction and purification of Cyanobacterial phycocyanin from halotolerant cyanobacteria".
- **Second Prize** for best Poster Presented at State Level Conference on "Recent Trends in Microbial Biotechnology", held at R.C. Patel College, Shirpur. Dist: Dhule. M.S., 7-8 Feb

- 2007. Poster entitled, "Screening of Exopolysaccharides Producing Halotolerant Cyanobacteria".
- **Second Prize** at the First Avishkar, an Inter-University Presentation Competition held at North Maharashtra University, Jalgaon, 15-16th Dec.2006, Paper entitled, "Biopotentials of Halotolerant Cyanobacteria".
- **First prize** (**Best Poster Presentation Award**) at an international conference; Third global sustainable biotech congress, 2014 Dec.1–5,2014 at North Maharashtra University, Jalgaon, India

### **Invited talks**

- 1. Screening of halotolerant cyanobacteria for commercially important metabolites, presented as a resource person at the National Conference held at Shree Shivaji Mahavidyalaya, Barshi, 12-13 Feb 2007.
- 2. "Cyanobacteria today and tomorrow", presented as a resource person at (Refresher course in Life Sciences) Academic Staff College, University of Pune, Pune, 20<sup>th</sup> Feb 2011.
- 3. "Cyanobacteria, Potential application in Biotechnology presented as a resource person at (FIP-Short term program) organized by Tuljaram Chaturchand College, Baramati Sponsored by Academic staff college, University of Pune, Pune, 15<sup>th</sup>- 20<sup>th</sup>oct. 2011.
- 4. Worked as a resource person, at R.Y.K. College Nashik, A two day workshop on "Detailing of credit and semester syllabus of M.Sc. Microbiology" 25-26, June 2013.
- 5. Worked as a resource person In Two days workshop on "T. Y. BSc Microbiology Syllabus Discussion" Organized by S. P. Mahila Mahavidyalaya, Shardanagar and BCUD SPP university, Pune (30-31 January 2015.
- 6. "Production of Bioinoculants" Presented as a resource person at **Two days state level** symposium cum workshop held at Vidya Prathisthan's Arts, Science and Commerce College, Baramati. Dist Pune.17<sup>th</sup>-18<sup>th</sup> Feb 2016.
- 7. "Cyanobacterial inoculants for sustainable agriculture development" Presented a paper in the International conference on "Microalgal and cyanobacterial biotechnology MACB-2016" organized by National Facility for Marine Cyanobacteria, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India (30 Aug 1 Sept 2016)
- 8. "Cyanobacteria: Laboratory methods & Applications in Biotechnology" Presented as resource person at National Conference on "Recent trends and opportunities in life science" organized by Department of Botany, Microbiology and Zoology, PDEA's Waghire College, Saswad (24-25 January 2017)
- 9. "Cyanobacteria: as a Bioinoculants." Presented as a Invited Speaker for **certificate course** and training programme on, Bioprocess Technology for Bioinoculants. at Vidya Prathisthan's Arts Science and Commerce college, Baramati. (20 Feb 2018)
- 10. Delivered Invited Talk in One Day Workshop on "Bioinoculant Production: Lab to Field & Public Advocacy" organized by Department of Microbiology, VPASC College, Baramati on 5<sup>th</sup> February 2020
- 11. Participated as a resource person in one day workshop on ,Restructuring of Syllabus for M Sc. Microbiology NEP2020 jointly organized by BOS in Microbiology, Savitribai Phule Pune university, Department of Microbiology and IQAC, HPT and RYK Science College, Nashik On Monday 17/07/2023.

12. Participated as a resource person in TWO day workshop on ,Restructuring of Syllabus for B.Sc. I Microbiology NEP-2020 jointly organized by BOS in Microbiology, Savitribai Phule Pune university and Department of Microbiology and IQAC, Sinhgad Science College, Pune dated 20-21 Oct. 2023.