

BIO-DATA

1. Name and full correspondence address: DR. KIRTANE SUSHAMA ANANDRAO

Associate Professor,
Department of Botany,
Yashwantrao Chavan College of Science, Karad.
Dist. Satara 415124 (MS) India

2. Email(s) and contact number(s): kirtanesa@gmail.com Contact No.09881399944.

Institution: Yashwantrao Chavan College of Science, Karad. Dist.
Satara. PIN- 415124 (MS) India

3. Gender: Female

4. Caste: SC (Nav-Boudhha)

5. Academic Qualification (Undergraduate Onwards):

Sr. No.	Degree	Subject	University/Institution
1	B. Sc.	Botany	Yashwantrao Chavan College of Science, Karad. Dist. Satara-415124 (MS) India
2	M. Sc.	Botany (Cyto-genetics and Plant Breeding)	Shivaji University, Kolhapur. (MS) India

6. Ph. D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Title: Cyto-physiological studies in onion (*Allium cepa* L.) with reference to mutagenesis.

Research Guide Name: Hon. Dr. K. N. Dhumal, Ex Professor in Botany

University: Pune University, Pune 411007. (MS), India.

Year of Award: 11th July, 2003.

7. Short-term Two-Credit Course:

Short-term **Two-Credit Course** at post-graduate level (duration: 30hrs, five days) on Dealing with Sexual Harassment at Workplace conducted in the Centre for Women's Studies, Shivaji Univesrity, Kolhapur on August 28-30th and 6-7th Sep. 2018.

Successfully completed with First class.

(Paper code: 71885, Paper Name: Dealing with Sexual Harassment at Workplace)

8. Work experience (in chronological order).

S. No.	Position held	Name of Institute	From	To
1	Assistant Professor	Yashwantrao Chavan College of Science, Karad. 415124 (MS). India	01/02/2007	6.7.2023
2	Associate Professor	Yashwantrao Chavan College of Science, Karad. 415124 (MS). India	06.07.2023	Till date

9. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received

S. No.	Name of the Award	Awarding Agency	Year
1.	Fellow of Mendelian Academy of Sciences	Mendelian Society of India, 194-B, S. K. Puri, Patana-800 001 (INDIA).	2004
2.	Senior Research Fellow	DAE-BRNS project entitled "Improvement in quality, yield and storage life of onion (<i>Allium cepa</i> L.) Through mutation breeding" under Dr. K. N. Dhumal, Dept. of Botany, University of Pune, Pune-411 007.	22 nd July, 2002

10. Recognition as a Research Guide for M. Phil., Ph.D. –

Shivaji University, Kolhapur (Ref. No. SU/PGBUTR/Recog/9236).

11. Vidwan ID: 490623

Member of –Prevention of Caste based Discrimination Committee From 2020

Shivaji University, Kolhapur

(Ref.: जा. क्र. विशेष कक्ष/जाती आधारित भेदभाव प्रतिबंध समिती निवड/१८६
दिनांक २ सप्टेंबर, २०२०)

12. Book Published:

I. One of Author:

1. Practical Handbook of Botany- B. Sc. I: 2022.

ISBN No. 978-93-93220-25-7

Publication: Success publication, Pune (S. No. 30/27, Laxmi Industrial Estate, Near Prabhat News Paper, Dhayari, Pune-41.

2. Practical Handbook of Botany- B. Sc. II: 2022.

ISBN No. 978-81-19939-51-0

Publication: Success publication, Pune (S. No. 30/27, Laxmi Industrial Estate, Near Prabhat News Paper, Dhayari, Pune-41.

II. Worked as Editor:

Text Book- **Cell and Molecular Biology** {Applicable to all Universities, Other equivalent Organizations and National Education Policy (NEP) 2020}

ISBN: 978-81-966170-1-1

Publication: My Rays Publication Centre, S. No. 66, Near Sai Baba Temple, Satav nagar, Handewadi, Hadapsar, Pune-411028, Maharashtra.

13. Publications (Research P:

Paper Published in National and International Journal:

Sr. No.	Author (S)	Title	Name of journal	Volume	Page	Year
1	Somade Prakash M., Kirtane Sushama A. Jadhav Prakash D. and Pratik P. Somade	In-vitro anti-bacterial and cytotoxic activity of Rubiadin	International Journal of Biology, Pharmacy Allied Science.	11(7)	2984-2989	2022
2	Kirtane Sushama A. and Jadhav Prakash D.:	In-vitro evaluation of glucose diffusion and amylolysis kinetics of beta-glucogallin.	World Journal of Pharmaceutical Research, (https://wjpr.net/)	10(12)	01-06.	2021
3	Kirtane Sushama A. and Jadhav Prakash D.	In-Vitro Evaluation for Glucose Diffusion and Kinetics of Amylolysis of Rubiadin.	Int. J. Sci. Research methodology www.ijstrm.humanjournals.com	19(3)	29-35	2021
4	Kirtane Sushama A. and Jadhav Prakash D.	Evaluation of Antibacterial and cytotoxic activity of Beta-glucogallin.	Int. J. All Research Education and Scientific Methods (IJARESM). (www.ijaresm.com)	9 (9)	597-600	2021
5	Jadhav Prakash D. and Kirtane Sushama A.	Evaluation of In-Vitro Antioxidant Activity of Leea macrophylla Standardized Extracts.	J. Current Pharma Research, 2. (www.jcpr.humanjournals.com)	12(4)	13-19.	2021

6	Kirtane Sushama A., Jadhav Prakash D. and Somade Prakash M.	In-Vitro Evaluation of glucose diffusion and amylolysis kinetics of Niranthin.	International J. Innovative Research in Multidisciplinary field	7 (9)	135-138	2021
7	Kirtane Sushama A.	Induced Mutation for Improvement in Nutritional Quality of Pulse Crops.	International Journal of Scientific Research in Science and Technology, (www.ijrst.com)	9 (6):	1182-1188.	2021
8	Sushama Kirtane, K.N. Dhumal and S.D. Ramteke	Studies on gamma radiation induced variability in photosynthetic activities in onion (L.)	Annals of Plant Physiology	32(2)	1-3	2019
9	Kirtane Sushama A.	Gamma Irradiation Induced Variability In Qualitative And Quantitative Traits In Onion (Allium Cepa L.).	Int. J. Bioved	29 (1)	39-43	2018
10	Kirtane Sushama A.	Effect of Leaf Extract of Verbascum chinense (L.) Santapau on Seed Germination and Seedling Growth of Onion (Allium cepa L.)	International Journal of Scientific Research in Science and Technology (IJSRST), Print ISSN: 2395-6011, Online ISSN : 2395-602X. http://ijrst.com/IJRSRST1845509	4 (5),	1848-1852	2018
11	Sushama A. Kirtane	Comparative Mutagenic Effectiveness and Efficiency of Sodium Azide and Gamma Radiation in Onion (Allium cepa L.),	International Journal of Theoretical & Applied Sciences (ISSN No. (Print): 0975-1718, ISSN No. (Online): 2249-3247)	10(1)	169-173.	2018.
12	Kirtane Sushma A. and Jadhav Pravin.	Mutagenic effect of Maleic hydrazide on seed germination and	International Journal of Research and Analytical Reviews (IJRAR),	5(4)	50-51.	2018.

		seedling growth of <i>Nigella sativa</i> L.				
13	Kirtane Sushama A.	Induced Genetic Variability and Improvement In Morpho-Agronomic Characteristics by Combinations of Physical and Chemical Mutagens	Trends in Biosciences	10 (22)	4472-4476	2017
14	Sushama A. Kirtane	Studies On Induced Mutations In Onion: Variations In Quantitative And Qualitative Characteristics Induced By Sodium Azide.	Flora & Fauna	20 (2)	255-259	2014
15	Sushama A. Kirtane	Studies on Induced Mutations in Onion: Frequency and Spectrum of Chlorophyll mutations.	Biological Forum	6 (2)	141-144	2014
16	Kirtane Sushama A.	Studies on induced mutations in onion: effect of combination Treatments of gamma radiation and sodium azide on Biological and biochemical parameters of onion (<i>Allium cepa</i> L).	Asian Academic Research Journal of Multidisciplinary	1	119-129.	2014
17	Sushama Kirtane and K. N. Dhumal	Studies on induced mutations in onion- IV) Frequency and spectrum of viable mutations.	Allium Improvement Newsletter USA).	13	22-33	2004
18	Sushama Kirtane, Sagar Datir, R. N. Pandey and K. N.	Induced physiological damage by physical and chemical mutagens in three varieties of onion.	Allium Improvement Newsletter (USA).	13	11-21	2004.

	Dhumal					
19	Sushama Kirtane and K. N. Dhumal.	Studies on induced mutations in onion: Biological and cytological effects of mutagen in M ₁ generation.	Int. J. Mendel	21(1-2)	11-13	2004
20	Sushama Kirtane and K. N. Dhumal.	Role of induced mutation in onion (<i>Allium cepa</i> L) improvement	Int. J. Mendel	20(3-4)	109-110	2003
21	Sushama Kirtane and K. N. Dhumal.	Cytotoxic and clastogenic effect of Gutkha on root tip meristem of <i>Allium cepa</i> L	Allium Improvement Newsletter (USA),	12	1-4	2002
22	A. P. Trivedi, K. E. Lawande, Sushama Kirtane and K. N. Dhumal.	Studies on growth parameters in different genotypes of onion (<i>Allium cepa</i> L)	Allium Improvement Newsletter (USA),	11	23-26.	2001
23	Sushama Kirtane , K. E. Lawande, A. P. Trivedi and K. N. Dhumal	Pollen sterility in mutagen treated onion (<i>Allium cepa</i> L).	Allium Improvement Newsletter (USA),	11	4-6	2001
24	Sushama Kirtane, S. L. Laware and K. N. Dhumal	Effect of Ultragin and Tribhuvan kirti on root tip cells of <i>Allium cepa</i> L.	J. Cytology Genetics	34(2)	147-151	1999

II. Paper Published in Proceeding:

1. **Kirtane Sushama A. 2022.** Induced Mutation for Improvement in Nutritional Quality of Pulse Crops. In: International e-Conference on New Horizons and Multidisciplinary Applications in Science and Technology In Association with International Journal of Scientific Research in Science and Technology Volume 9 | Issue 6 | Print ISSN: 2395-6011 | Online ISSN: 2395-602X (www.ijrst.com) PP. 1082-1088
2. **Kirtane Sushama A. 2015.** Efficacy of leaf extract of a medicinal plant for enhancing seed germination and seedling growth of Onion (*Allium cepa* L) pp. 73-76. In: Proceeding of Conference "Modern trends in Rural management and development: a Paradigm shift"

Organized by BVDU-Institute of Management and Rural development administration, Sangali on 28th and 1st Mar. 2015.

3. **Kirtane S. A. 2013.** Mutagenic Effect of sodium azide on *Solanum Xanthocarpum*. In: Proceeding of *Conference on “Recent trends in plant sciences, its future prospects and biodiversity conservation”* Organized by Yashwantrao Chavan College of Science, Karad. 29-30 Nov. 2013. pp. 124-126.
4. **Sushama Kirtane, K. E. Lawande, Anil Khar and K. N. Dhumal. 2000.** Physiological and macromolecular variation induced by gamma radiation and sodium in onion (*Allium cepa* L). DAE-BRNS symposium on the “Use of nuclear and molecular techniques in crop improvement” Dec. 6-8, 2000. Bhabha Atomic Research Center (BARC), Mumbai-400085. pp. 285-288.

III: Compendium:

Dr. **Kirtane Sushama Anandrao 2020.** Mangroves: The Boon of nature PP. 168. In: *Climate Change, Mangrove & Management*, June 2020 ISBN: 978-93-88901-10-9. Bhumi Publishing, Nigave Khalasa, Kolhapur, 416207, Maharashtra, INDIA

14. Participation and presentation of research paper in Conferences:

I. International Conference:

Attended and Presented Research Paper in -3rd International Crop Science Congress held at CCH-Hamburg (Germany) on 17th –22nd Aug. 2000.

1. **Kirtane Sushama A. 2022.** Influence of hibiscus Acetosella Leaf Leachate on growth of *Solanum khasianum* In: International Conference on “Innovative trends in Life Sciences” organized by Sadguru Gadage Maharaj College, Karad on 11th & 12th Mar. 2022.
2. **Sushama Kirtane 2021.** Seed germination studies in *Withania coagulans* (Paneer phool). In: International e-Conference On “New Horizons and Multidisciplinary Applications In Science And Technology (ICMA-2021)” on 11th to 13th October 2021 Organised by Faculty of Science and IQAC, Shri Vitthal Rukhmini College, Sawana, (Tq. Mahagaon Dist. Yavatmal, Maharashtra, India.
3. Jadhav Pravin And **Kirtane Sushama 2021** Effect of Aqueous Root Extract of *Alternanthera Sessilis* on Seed Germination of *Andrographis Paniculata*. In: Ebid
4. Rutuja Pradip Bhosale and **Sushama Kirtane 2021** Effect of aqueous root extract of *Hibiscus cannabinus* L. on seed germination of *Macrotyloma uniflorum* (Lam.) Verdc. In: Ebid

5. **Kirtane Sushama A. 2020.** Improvement in nutritional quality of pulse crops through induced mutation In: Online One Day International Conference on “Recent Trends in Plant Sciences” 15th May 2020, Organized by - Shri D.H. Agrawal Arts, Shri Rang Aavadhoot Commerce & Shri C.C. Shah & Shri M.G. Agrawal Science College, Navapur Dist. Nandurbar, Maharashtra, India
6. **1st Prize- for Poster presentation**
International Conference on- Emerging trends in delivery of phytoconstituents and Ethnopharmacology validation of Traditional Medicine II, Organized by Poona College of Pharmacy, Bharti Vidyapeeth, Pune on 29th -30th Nov. 2019.
7. **Kirtane Sushama 2016.** Effectiveness of traditional seed treatment method to break dormancy in a medicinal plant: *Solanum khasianum* (Clarke) presented paper in the International Conference on Advances in Asian Medicine- Symposium on Ethnopharmacology – Validation of Traditional Medicine, organized by Bharati Vidyapeeth University–Poona College of Pharmacy on 4th January 2016.
8. **Kirtane Sushama 2015.** Induced variations in morpho-agronomic characteristics of onion (*Allium cepa* L.) International conference on -Contemporary research in chemical and life sciences-2015. Organized by Sadguru Gadage Maharaj College, Karad on 22nd and 23rd April, 2015
9. **Kirtane Sushama 2015.** Cytotoxic and mitodepressive effect of papadkhar (alkaline salt). International Conference on Climate Change and Sustainability (IC3S – 2015) organized by Thakur College of Science and Commerce on 19th – 21st Dec. 2015.
10. **Kirtane Sushama A. 2015.** Efficacy of Leaf extract of a medicinal plant for enhancing seed germination and seedling growth of Onion. BVCON-15 National Conference on - Modern Trends in Rural Management and Development: A Paradigm Shift, organized by Bharati Vidyapeeth Deemed University, Pune – Institute of Management and Rural Development Administration, Sangali on 28th Feb. and 1st Mar. 2015.
11. **Kirtane Sushama A. 2014.** STUDIES ON INDUCED MUTATIONS IN ONION: Variations in quantitative and qualitative characteristics induced by sodium azide. National Conference on- Life Sciences: An Outlook & Challenges” Organized by- Dahiwadi College, Dahiwadi on 12th & 13th Sep. 2014.
12. **Sushama Kirtane, K. E. Lawande and K. N. Dhumal. 2000.** Mutagenic effects in onion (*Allium cepa* L). 3rd International Crop Science Congress held at CCH- Hamburg (Germany) on 17th –22nd Aug. 2000.

13. **Sushama Kirtane**, K. E. Lawande and K. N. Dhumal. 2000. International Conference of SAARC countries on Biotechnology in Agriculture, Industry and Environment, at KARAD (MS) India on 28th –30th Dec. 2001.
14. **Sushama Kirtane**, S. L. Laware and K. N. Dhumal. 1998. Mitodepressive and cytotoxic effects of Gutkha on root tip mitosis (*Allium cepa* L). Second Vishwa Vaidya Sammelan (Second world Conference) on Ayurved and Medico-Botany, Furgussion college, Pune. Oct. 26th – 1st Nov. 1998.
15. **Sushama Kirtane**, S. L. Laware and K. N. Dhumal. 1998. Effect of Ultragin and Tribhuvan kirti on root mitosis in *Allium cepa* L.- A comparative study. Second Vishwa Vaidya Sammelan (Second world Conference) on Ayurved and Medico-Botany, Furgussion college, Pune. Oct. 26th – 1st Nov.
16. **Sushama Kirtane**, K. E. Lawande and K. N. Dhumal. 2001. Mutagenic effects in onion- IV) Gamma radiation induced cytophysiological and macromolecular changes in onion (*Allium cepa* L) var. Baswant-780. International conference of SAARC countries on Biotechnology in agriculture, Industry and Environment. 28th – 30th Dec. 2001, Karad (MS).

II. Participation and presentation of research paper in National Conference:

1. **Sushama Kirtane** and K. N. Dhumal 1998. Cyto-physiological effects of sodium azide in *Allium cepa* L. VIIIth All India Conference on Cytology and Genetics and symposium on molecular genetics and biotechnology. Gulberga Univesity, Gulberga (Karnataka), Oct. 26th – 28th.
2. **Sushama Kirtane**, S. L. Laware and K. N. Dhumal. Analysis of mutagenic effects of gamma rays in onion (*Allium cepa* L). 1998. SUSAMVAD, Golden Jubilee Research Student Seminar, University of Pune, Pune –411007. Dec. 4-5th, 1998.
3. K. N. Dhumal, **Sushama Kirtane**, S. L. Laware, Anil Khar and K. E. Lawande. 1999. Morphogenic and Macromolecular analysis of combined mutagenic effects of sodium azide and gamma radiations in onion (*Allium cepa* L). 10th All India Congress of Cytology and Genetics, Oct. 29th-31, 1999. Department of Zoology, University of Kalyani, Kalyani- 741235 (WB).
4. **Sushama Kirtane**, S. L. Laware, Anil Khar, K. E. Lawande and K. N. Dhumal. 2000. Effect of chemical mutagen on bulb morphology, physiology and yield in onion (*Allium cepa* L). 2000. Indian Science Congress, department of Botany, University of Pune, Pune-411007. Jan. 3-7, 2000.

5. **Sushama Kirtane**, S. L. Laware, K. E. Lawande and K. N. Dhumal. 2000. Induced macromolecular variability in onion (*Allium cepa* L). National symposium on Onion and Garlic production and post harvest management challenges and strategies. Nov. 19th-21, 2000. Krishi Vigyan Kendra, YCMOU, Nashik (MS), pp. 186.
6. **Sushama Kirtane**, S. L. Laware, Anil Khar, K. E. Lawande and K. N. Dhumal. 2001. Mutagenic studies in onion (*Allium cepa* L)- Macromolecular Analysis. Eighth All India Conference on Cytology and Genetics. Jan. 23-25, 2001. Banglore Univesity, Banglore, pp. 50.
7. **Sushama Kirtane**, K. E. Lawande and K. N. 2001. Dhumal. Mutagenic effects in onion –I) Effect of sodium azide on physiological and biochemical changes in onion (*Allium cepa* L). UGC sponsored National Conference- Plant Biotechnology for Indian Agriculture, 7th–8th Oct. Vasanttrao Naik Mahavidyalaya, Aurangabad. Aurangabad- 431003. pp. 70.
8. Dhumal K. N., **Sushama Kirtane**, Sagar Datir and K. E. Lawande. Studies on gamma radiation induced cytophysiological and biochemical changes in onion (*Allium cepa* L). 2001. National seminar on role of plant physiology for sustaining quality and quantity of food production in relation to environment, Dec. 5-7, 2001. Dept. of Crop Physiology, University of Agricultural Science, Dharwad (Karnataka).
9. **Sushama Kirtane**, K. E. Lawande and K. N. Dhumal. Effect of EMS on physiological and biochemical changes in onion (*Allium cepa* L). 2001. Ebid, pp. 95.
10. **Sushama Kirtane** and K. N. Dhumal 2003 Sodium azide and gamma radiation induced macromutations in onion (*Allium cepa* L). 2003. In: National seminar on- Advances in genetics and plant breeding- Impact of DNA revolution, Oct. 30-31, 2003, UAS, Dharwad.
11. **Sushama Kirtane**, 2013. **Male sterility induced by combination treatments of gamma radiation and sodium azide.** UGC sponsored National Seminar on “Recent trends in Biodiversity and Environment Science, organized by Bharati Vidyapeet’s Matoshri Bayabai Shripatrao Kadam Kanya Mahavidyalaya, Kadegaon, Dist. –Sangali on 3rd - 4th Oct. 2013.
12. **Sushama Kirtane** 2014. **STUDIES ON INDUCED MUTATIONS IN ONION: Variations in quantitative and qualitative characteristics induced by sodium azide.** National Conference on- Life Sciences: An Outlook & Challenges” Organized by- Dahiwadi College, Dahiwadi on 12th & 13th Sep. 2014
13. Bhosale Rutuja1, **Kirtane Sushama** 2022 Mutational studies in *Macrotyloma uniflorum* (Lam.). Verdc. I. Effect of EMS on seed germination and seedling length. In: One day

National conference on Recent Advances in Biological Science and Biodiversity Conservation (RABSBC-2022) organized by Department of Botany, Shri. Shivaji Mahavidyala, Barshi on 28th December 2022.

14. Bhosale Rutuja¹, **Kirtane Sushama 2022**. Mutational studies in *Macrotyloma uniflorum* (Lam.) Verdc. Effect of Gamma Radiation on seed germination and Seedling length. In: Research Book- National Conference on Biodiversity and Biosciences held at Rayat Shikshan Sanstha's, Balwant College, Vita on 29th Dec. 2022. ISBN Number: 978-81-956739-6-4.
15. Saish Shinde¹, Manasi Masugade, Nehali Nikam, Nilofar Shikalgar, Rutuja Bhosale, Pramodini Kamble and **Kirtane Sushama 2022**. Primary detection of phytochemicals from traditionally used wild vegetables. Ebid.
16. Kamble P. B., **Kirtane S. A 2022**. Nutritional Analysis of Traditional Vegetable- Cassia fistula L. From Khatav Tehsil. Ebid.
17. Saish Shinde, Manasi Masugade, Nehali Nikam, Nilofar Shikalgar, Harsh Mali, Rutuja Bhosale and **Kirtane Sushama 2023**. Qualitative phytochemical analysis of wild vegetables. In: Two Days National Conference on Green Chemistry and Advanced Materials (GCAM-2023) Organized by Yashwantrao Chavan College of Science, Karad on 14th and 15th March 2023. Pp. 97.
18. Rutuja Bhosale, Trupti Lade and **Kirtane Sushama 2023**. Primary detection of phytochemicals from medicinal plants: *Plumbago zeylanica* L. and *Synedrella nodiflora* L. pp. 98. Ebid.
19. Trupti Lade, Pratima Tatke and **Sushama Kirtane 2023**. Formulation and evaluation of bio-adhesive bandage for bone fracture. pp. 100. Ebid.
20. Rutuja Bhosale and **Kirtane Sushama 2024**. Gamma Rays and EMS Induced Chlorophyll Mutation in M2 Generation of Horsegram in National Conference on Emerging Trends in Science and Technology organized by the Faculty of Science and IQAC, Yashwantrao Chavan Mahavidyalaya, Halkarni Tal- Chandgad, dist- Kolhapur on 20th January 2024.
21. Rutuja Bhosale and **Kirtane Sushama 2024**. Mutagenic Effectiveness and Efficiency of Gamma Rays in *Macrotyloma uniflorum* (Lam.) VERDC. In: 6th National Conference on Recent Trends in Pure and Applied Sciences (RTPAS-2024) organized Dr. Parangrao Kadam Mahavidyalaya, Sangli on 17th February 2024.

15. Webinar:

Organized: 12,

16. Life member of Journals:

1. **The Indian Journal of Genetics and Plant Breeding-** An International Journal of Genetics, Plant Breeding and Biotechnology. The Indian Society of Genetics and Plant Breeding. Indian Agricultural Research Institute, New Delhi-110 012.
2. **International Journal “Mendel”**
Mendelian Society of India, 194-B, Krishna Puri, PATNA-800 001. (INDIA).
3. **Trends in Biosciences** (Online ISSN 0976-2485, Print: ISSN 0974-8431) published by DSAS&RD. Membership Code :1441-TIBS-A-2017.

17. Details of Projects completed.

S. No.	Title	Cost in Lakh	Duration	Role as PI/Co-PI	Agency
1	Mutational Studies in a Medicinal Plant- <i>Solanum indicum</i> .	Rs. 90,000/-	2-years	Role as PI	UGC

18. Participation in Workshop:

Workshop on “Molecular Biology Techniques” organized by Department of Microbiology, Wilson College, Mumbai-400 007 during 19th -23rd Aug. 2014.

19. Participation in training courses-

2. Training on various techniques in molecular biology under the guidance of Dr. Major Singh, Scientist, Indian Institute of Vegetable Research, Varanashi- 221005. (UP) India. (Duration- 16th April to 4th May, 2001)
3. Training on measure of various physiological parameters in wheat and chickpea under the guidance of Dr. P. S. Deshmukh, Senior Scientist, Plant physiology Division, Indian Agricultural Research Institute (IARI), New Delhi-110012. (Duration- 22nd to 25thJan. 2002)

20. Co-ordinator:

1. Worked as Co-ordinator for UGC Sponsored National Conference On Recent trends in plant sciences, its future prospects and biodiversity conservation. Organized by Department of Botany, Yashwantrao Chavan College of Science, Karad during 29-30 Nov. 2013.

2. Faculty Development Programme on “Cyber Security” organized by Faculty Development Centre in Cyber Security and Data Sciences, Shivaji University, Kolhapur hosted by Yashwantrao Chavan College of Science, Karad conducted by FDC PMMMNMTT, during 2nd July to 8th July, 2019.
3. One Day National Webinar entitled “Science, Environment and Human Health” jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and Yashwantrao Chavan College of Science, Karad, Maharashtra on 02 July 2020

21. Guest lecture:

1. Loknete Mohanrao Kadam College of Agriculture, Kadegaon

Topic: Mutation Breeding

2. Smt. Sushilatai Desai College, Daulatnagar (Marali): 15/02/2019

3. Balasaheb Desai College, Patan: 15/02/2019

22. Invited Talk on “Women Empowerment”

1. National level webinar organized by SICS societies, Degree college of Arts, Commerce and Science College Ambarnath, Mumbai on the occasion of International Women Day, 8th March, 2021.
2. National webinar entitled “Socio-Economic Status of Women in India: Ancient to Morden Era” organized by Kisanveer Mahavidylaya, Wai on 15th June, 2021.
3. National webinar on “Status of Women in Ancient and Modern India” organized by Shree Santkrupa Shikshan Sanstha’s, College of Pharmacy (D. Pharm) Ghogaon, on 10th Feb. 2022.
4. National webinar on “Journey of Women Empowerment in India” organized by Balasaheb Desai Foundation’s Smt. Vijayadevi Desai Senior College, Daulatnagar, Patan on 18th Feb. 2022.
5. Student, Faculty Development Program organized by Kasegaon Education Society’s, Rajarambapu College of Pharmacy, Kasegaon, on 2 March, 2022. Title of speech- “Status of Women in India: Ancient, Medieval and modern”

6. Webinar on “Women empowerment” organized by P.E.S. Modern college, Shivajinagar, Pune, on 8th March, 2022.

23. Organizing secretary:

1. Special Lecture Series on “Career Opportunities in Botany” 24-26 June, 2021.
2. National webinar on “Sustainability Science: A multidisciplinary Approach” 9th Feb. 2022.
3. National Webinar- Overview on Science & Literature 28.02.2022
4. National webinar on “Multimedia enriched E-content Development for effective online teaching” 01.03. 2022.
5. National Webinar on- Snake identification, misconception and Snakebite mitigation 03.03.2022
6. International Women Day- State Level Webinar on – Prevention of Sexual Harassment- 08.03.2022.
7. A Webinar on - Zero Shadow Day- A Special Celestial Event: 08.05.2022.

National webinar- Celebration of Bicentenary of “Mendel” – Organization of Webinar Series

8. Resource person: Dr Rupesh Bedere 22.07.2022
9. Resource person: Dr. M. G. Palshetkar 23.08.2022
10. Resource person: Dr. N. B. Gaikwad 22.09.2022
11. National webinar on “World Ozone Day”- “Ozone treaties and sustainable goals” 16.09.2022.
12. Online Collaborative campaign for “Green Earth and Sustainable Future” on WORLD EARTH DAY - 22 April, 2024 organized by Yashwantrao Chavan College of Science, Karad, MAESA FOUNDATION, PUNE and “Botany For sustainable Future” on 22.04.2024.
13. A Webinar, organized on the occasion of “World Environment Day- 5th June” by Government Science College, Gadchiroli, Yashwantrao Chavan College of

Science, Karad, Late Karmaveer Dr. P. R. Ghogrey Science College, Dhule and “Botany for Sustainable Future” on 5th June, 2024.

14. A Webinar, Organized on the occasion of “World Nature Conservation Day (28th July)” by Government Vidarbha Institute of Science and Humanities (Autonomous) Amravati, Yashwantrao Chavan College of Science, Karad, Rashtrapita Mahatma Gandhi Arts, Commerce and Science College, Saoli, District Chandrapur and “Botany for Sustainable Future” on 27th July, 2024.

24. Resource person:

I. For one day workshop on “Cocoon handicrafts”

1. Krishna Mahavidyalaya, Rethare- 14.02.2017
2. Smt. Vijayadevi Desai Science and Commerce Senior College, Daulatnagar, Patan - s29/01/2019.
3. Yashwantrao Chavan Institute of Science, Satara – 28.08.2019.
4. Balasaheb Desai College, Patan, District Satara- 16.01.2020
5. Yashwantrao Chavan Institute of Science, Satara – 27.03.2021.
6. Yashwantrao Chavan Institute of Science, Satara – 16.03.2022.
7. D. P. Bhosle College, Koregaon, Dist. Satara- 26.12.2023
8. Yashwantrao Chavan College of Science, Karad- 22.02.2024
9. Yashwantrao Chavan College of Science, Karad – 16.08.2024

II. For Changed Syllabus Workshop:

- i) One Day Online Teachers’ Workshop on the Revised (CBCS) Syllabus of Botany for B. Sc. III (Theory) Paper IX & X on 6 February, 2021 Organized by the Department of Botany, M. H. SHINDE MAHAVIDYALAYA, TISANGI, Tal- Gaganbavada, Dist- Kolhapur.
- ii) One day Workshop on ‘New Changed Syllabus (CBCS) and NEP 2020 of B.Sc. Part-II (Practical) Botany organized by Vishwas Shikshan Prasarak Mandal’s Deshbhakt Anandrao Balwantrao Naik Arts & Science College Chikhali, Tal Shirala, Dist Sangli. 415408 on Friday, 13th October, 2023

25. Member of Sub- committee of Changed Syllabus of B.Sc. III- 2024-
Shivaji University, Kolhapur

26. **ICT-Tools & Techniques Used:**

[https://drive.google.com/file/d/14EHT6WmW-
erYud75DQH86HdZHK8Vqnmr/view?usp=sharing](https://drive.google.com/file/d/14EHT6WmW-erYud75DQH86HdZHK8Vqnmr/view?usp=sharing)