




Social Transformation Through Dynamic Education

Bharati Vidyapeeth's

Matoshri Bayabai Shripatrao Kadam Kanya Mahavidyalaya, Kadegaon.

 **DEPARTMENT OF BOTANY** 

 **Vision:** 'To conduct innovative research, teaching and outreach on the patterns and processes of life with a focus on plants and their environments.'

 **Mission:**

- To know the importance and scope of Botany.
- To impart knowledge of science is the main objective of education.
- To develop a scientific attitude to make students open-minded, critical and curious.
- To expose themselves to the diversity among life forms.
- To make aware of natural resources and the biodiversity conservation.

 **About department:**

1. **Year of establishment :** 1990

2. **Programs offered:** B. Sc., M. Sc., M. Phil. and Ph. D.

Degree		Intake capacity
UG	B. Sc. Botany	F.Y. B.Sc.: 120 S.Y. B.Sc.: 120 T.Y. B.Sc.: 20
PG	M. Sc. (Mycology and plant pathology)	20
Degree	Specializations	Intake capacity
M. Phil.	Mycology and plant pathology, Plant physiology	15
Ph. D.	Mycology and plant pathology, Angiosperm systematics, Plant Physiology	10

3. **Pattern:** Semester (CBCS)

4. **Skill-Based Short-Term Certificate Course:** Mushroom cultivation

5. **Faculty profile**

Sr. No.	Name of faculty	Designation	Qualification	Specialization	Experience in years
1.	Prof. Dr Mrs. M. M. Ghatge	Professor & Head	M.Sc., M. Phil., Ph.D.	Mycology and plant pathology	31
2.	Prof. Dr V. S. Salunkhe	Professor	M.Sc., B.Ed., M.Phil., Ph.D.	Palaeobotany	31
3.	Dr R. R. Jadhav	Associate professor	M. Sc., Ph. D.	Mycology and plant pathology	31
4.	Dr V. V. Naik	Assistant professor	M. Sc., M. Phil., Ph. D., P.G.D.E.P.M.	Plant stress physiology	08
5.	Dr H. S. Joshi	Assistant professor	M. Sc., Ph. D.	Phycology	07
6.	Miss P. L. Patil	Assistant professor	M. Sc.	Mycology and plant pathology	01
7.	Miss V. R. Ambawade	Assistant professor	M. Sc.	Mycology and plant pathology	01

6. Research Projects

Sr. No.	Name of faculty	Title of project	Funded by	Duration	Amount sanctioned (₹)
1.	Prof. Dr Mrs. M. M. Ghatge	Study of aerospora of Kadegaon tahsil (M.S.) India.	UGC	2006 - 2008	60,000/-
2.	Prof. Dr Mrs. M. M. Ghatge	Metal tolerance study of some road side plants along Pune Kolhapur Highway.	UGC	2012 - 2015	10,80,800/-
3.	Prof. Dr V. S. Salunkhe	Studies on Biodiversity of Surli ghat Karad, Dist. Satara, (M.S.) India.	UGC	2005 -2007	45,000/-
4.	Dr R. R. Jadhav	Studies on diversity of ethnomedicinal plants of Kadegaon tahsil in Sangli district, (M.S.) India.	UGC	2009 - 2012	85,000/-
5.	Dr V. V. Naik	Effect of Melatonin on Onion (<i>Allium cepa</i> L.) Cultivars under Salinity Stress.	Shivaji University, Kolhapur	2022 ongoing	1,50,000/-

7. Research publications

Sr. No.	Name of faculty	International	National	Book	Book chapter
1.	Prof. Dr Mrs. M. M. Ghatge	11	14	03	01
2.	Prof. Dr V. S. Salunkhe	12	08	01	--
3.	Dr R. R. Jadhav	16	05	01	--
4.	Dr V. V. Naik	09	04	02	02
5.	Dr H. S. Joshi	04	04	--	--

8. Research Paper Presentations in Seminars and Conferences

Sr. No.	Name of faculty	International	National
1.	Prof. Dr Mrs. M. M. Ghatge	07	23
2.	Prof. Dr V. S. Salunkhe	05	15
3.	Dr R. R. Jadhav	04	13
4.	Dr V. V. Naik	02	10

9. Research guidance for M.Phil. / Ph.D. by faculty

Sr. No.	Name of faculty	M.Phil.	Ph.D.
1.	Prof. Dr Mrs. M. M. Ghatge	--	Awarded: 03 Working: 04
2.	Dr R. R. Jadhav	--	Working: 02

10. Patents published

Sr. No.	Name of faculty	Title of patent	Patent application no.	Date of patent published
1.	Prof. Dr Mrs. M. M. Ghatge	Deep learning models-based plant disease detection and identification and alerting in internet of things	202241039603	22/07/2022
2.	Prof. Dr V. S. Salunkhe	Deep learning models-based plant disease detection and identification and alerting in internet of things	202241039603	22/07/2022
3.	Dr R. R. Jadhav	Deep learning-based approach to analyze the growth of mushroom by using the concept of image recognition	202241041684	29/07/2022

4.	Dr V. V. Naik	Image processing-based approach integrated with deep learning to accurately detect the root cause for disease and factors responsible for decrease in crop yield	202211040082	22/07/2022
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11. Academic memberships

Sr. No.	Name of faculty	Membership
1.	Prof. Dr Mrs. M. M. Ghatge	1. Board of studies in Botany, Shivaji University, Kolhapur 2. Indian Women Scientists Association 3. Faculty of Science, Shivaji University, Kolhapur 4. Indian Botanical Society 5. National Teachers Organization in life Science (NTOILS) 6. Indian Fern Forum, Lucknow
2.	Prof. Dr V. S. Salunkhe	1. International Organization of Palaeobotany, Kolkata. 2. Swami Botanical Club, Tiruchirpalli, Tamil-Nadu. 3. Advances in plant Sciences, Muzaffarnagar 4. Indian Association Taxonomy, Calikat. Kerala.
3.	Dr R. R. Jadhav	1. Shivaji University Botany Teachers Association 2. Sangli District Botany Teachers Association

12. FDP / Refresher course / Orientation course completed by faculty

Sr. No.	Name of faculty	Refresher course	Orientation course
1.	Prof. Dr Mrs. M. M. Ghatge	03	01
2.	Prof. Dr V. S. Salunkhe	03	01
3.	Dr R. R. Jadhav	04	01
4.	Dr V. V. Naik	03	01

Activities

Sr. No.	Activity	Theme	Sponsored by	Date
1.	National Conference	Biotechnology for Agriculture and Rural Development	UGC and Shivaji University	29 th to 30 th December, 2004
2.	National Conference	Recent Trends in Biodiversity and Environmental Science	UGC and Shivaji University	November, 2013
3.	Workshop	Revised syllabus of B. Sc I (Botany)	Shivaji University	September 2014
4.	Workshop	Flower Arrangement	Shivaji University	22 nd April, 2022

Syllabus

Sr. No.	Class	Link
1.	B. Sc. I Semester pattern CBCS NEP	Link I
2.	B. Sc. II Semester pattern CBCS	Link I
3.	B. Sc. III Semester pattern CBCS	Link I
4.	M. Sc. I Semester pattern CBCS NEP	Link I
5.	M. Sc. II Semester pattern CBCS	Link I

MoU and collaborations

1. Department of Botany, Shivaji University, Kolhapur.
2. Bharati Vidyapeeth Deemed University, Pune.
3. Krantisinh Nana Patil Mahavidyalaya, Walwa.

Infrastructure facility

- Laboratories:
 - 1) Lab 1 – B.Sc. I & II (9.6 X 7.3 m)
 - 2) Lab 2.- B. Sc. III (6.3 X 6.2 m)
 - 3) Lab 3- M.Sc. Laboratory
 - 4) Lab 4- Research Laboratory
- Classroom:
 - 1) M.Sc. I Classroom
- Faculty room.
- Botanical garden












Equipment

1. Atomic Absorption Spectrophotometer
2. Horizontal Gel electrophoresis
3. Flame photometer
4. Laminar air flow
5. Distillation plant
6. Hot air oven (2)
7. Refrigerator
8. Research microscope
9. Tilak air sampler
10. Microphotography Camera (2)
11. pH meter Digital (2)
12. Camera lucida (2)
13. Micrometry (2)
14. Altimeter (1)
15. Binocular (2)
16. Spectrophotometer (1)
17. Constant temp. water bath (1)
18. Chilling Centrifuge
19. Compound microscope (24)
20. Inoculation Chamber (4)
21. Overhead projector
22. Digital Balance
23. Herbarium cupboard

Journals

1. Journal of Science and technology
2. Journal of Life Science
3. Nature, Environment and Pollution technology
4. International Journal of Agricultural Science
5. Academy of Plant Science
6. Homeopathy for All
7. Ayurveda for All
8. Journal of Eco-toxicology and Environmental monitor
9. Journal of Eco-biology
10. Current Science
11. Science reporter

Highlights of the department

-  Three Faculty members are M.Phil. & Ph.D. guide
-  Department has well equipped research laboratory
-  Botanical garden with varied plants
-  Well-equipped separate U.G., P.G., Research laboratories
-  Faculty members has completed Minor & Major research projects
-  Department has 472 reference, 10 well reputed journals & text books
-  Department has organized Conferences, seminar & workshops
-  Consultancy Services are provided to farmers of Kadegaon Tahsil.
-  Every year Study tours organized in Botanical interesting places.
-  Collaboration – Bharati Vidyapeeth’s Deemed University, Pune and Shivaji University, Kolhapur.
-  Students-Teacher Projects

