" ज्ञा ।, विज्ञा । आजि सुसंस्नार यासाठी शिजज प्रसार"

शिजजमहर्षी डॉ. बापूजी साळुंजे

Shri Swami Vivekananda Shikshan Sanstha, Kolhapur's







### ABOUT THE DEPARTMENT

> ESTABLISHMENT (UG):1982

➤ B.Sc. III : 2013 (On increasing demand of Students)

Research Recognition: 2013 (M. Phil. AND Ph. D.)

Learning Resources: Books

In Central Library Text Books:237

Reference Books:336, Number of Journals:12

Practical Books:70,

➤ Resources on Internet: N-List Journals, e-books

All Faculties have N- List account for Research Journals.



### **INFRASTRUCTURE**

- Department Area: 1744 Sq. Feet
- Laboratories: 03
- > Shade House: 01
- Major Research Facilities :

Laminar Air Flow (Centrally Available)

Double Beam Spectrophotometer,

Centrifuge, Soil & Water Analysis Kit, Kjelhda's Assembly Trinocular and Stereoscopic Microscopes.

>IT infrastructure:

- 1) Computer:01
- 2) **Printer** : 01
- 3) Net Connectivity: Yes



### FACULTY OF THE DEPARTMENT

Sr. No.	Name	Qualification	Designation	Specialization	Teaching Experience	Enrolled Students for Ph.D.
1	Dr. Kulkarni N. A.	M.Sc., Ph.D.	Associate Professor	Plant Physiology and Ecology	29	
2	Dr. Patil A. A.	M.Sc., Ph.D., M.B.A.	Associate Professor	Plant Physiology and Ecology	25	02
3	Dr. Dangat B.T.	M.Sc., Ph.D.	Assistant Professor	Plant Biotechnology	08	
4	Dr. Sathe S. S. (Till 17 Aug. 2014)	M.Sc., Ph.D.	Associate Professor	Plant Physiology and Ecology	30	04
5	Mr. Andoji Y. S.	M.Sc.	Assistant Professor	Mycology and plant pathology	05	
6	Mrs. Mane J. S.	M.Sc.	Assistant Professor	Biodiversity	03	
7	Mrs. Patil S. P.	M.Sc.	Assistant Professor	Biodiversity	03	



### **SUPPORTING NON TEACHING STAFF**

Sr. No.	Name of the staff	Position	Experience
01	Shri. Kadam C. B.	Lab. Assistant	22 yrs.
02	Shri. Koli M. K.	Lab. Attendant	30 yrs.
03	Shri. Jagtap S. M.	Lab. Attendant	03 yrs.



### **TEACHING PEDAGOGY**

- Remedial teaching: For Slow Learners.
- ➤ Interactive teaching methods: Feedback Questioning , Surprise Test , Group Discussion, Seminar, Lecture.
- > Methods adopted for classroom and laboratory teaching:

Use Of Charts, Slides, Models.

- **Effective and reasonable use of ICT:** PPT Presentation by LCD Projector
- **Experimental learning:** Arranging Experiment as per the Practical Curriculum
- Field based learning: Arranging Study Tours at Different Localities of

Botanical Interest

**Evaluation methods:** Unit Test, Class Test, Seminars











### **TEACHING METHODOLOGY**

### Field visits











### **CURRICULUM DESIGN & DEVELOPMENT**

#### TEACHERS PARTICIPATION IN CURRICULUM DESIGN & DEVELOPMENT

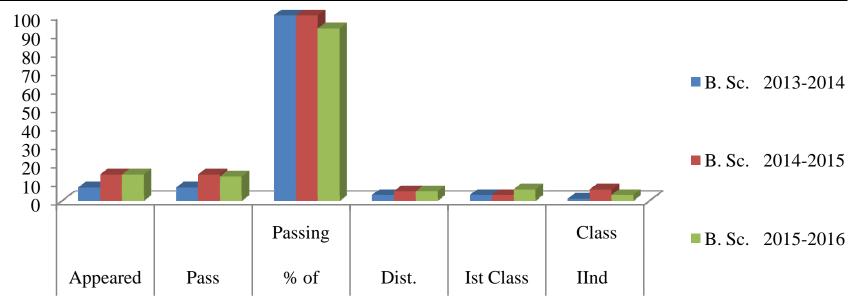
Sr. No	Name of Teacher	Board of Studies (Member of sub committee)	Name of University/ Institution
1	Dr. Kulkarni N.A.	Botany syllabus & Paper setter, Research Guide (M.Phil. & Ph.D.)	Shivaji University, Kolhapur
2	Dr. Mrs. Patil A. A.	Research Guide (M.Phil. & Ph.D.)	Shivaji University, Kolhapur



### **RESULT & STUDENT PROGRESSION**

Percentage of students progressing from UG to PG: 33 % (07 out of 21)

Class	Year A	Appeared	Pass	% of Passing	Dist.	I <sup>st</sup>	$ m II^{nd}$
						Class	Class
	2013-2014	07	07	100	03	03	01
B. Sc.	2014-2015	14	14	100	05	03	06
	2015-2016	14	13	92.85	05	06	03





### ENROLLED STUDENTS FOR PH. D.

S. N.	Name of the Student	Enrollment date	Name of the Guide
1	Shri. Shekhar A. Mohite	01/12/2012	Dr. Sanjay S. Sathe
2	Shri. Gajanan M. Garule	01/12/2013	Dr. Alaka A. Patil
3	Miss. Geeta R. Bate	01/12/2013	Dr. Alaka A. Patil
4	Shri. Vikas V. Jadhav	01/12/2013	Dr. Sanjay S. Sathe
5	Miss. Aparna A. Patil	01/12/2013	Dr. Sanjay S. Sathe
6	Miss. Bhagyashri M. Jadhav	01/12/2013	Dr. Sanjay S. Sathe



### **RESEARCH PROJECTS OF STUDENTS**

# Research Areas: Horticulture, Agriculture, Floriculture, Pomoculture, Gardening

Sr. No.	Year	Number of projects
1	2010- 2011	07
2	2011-2012	21
3	2012-2013	25
4	2013-2014	34
5	2014-2015	43
6	2015-2016	06
	TOTAL	136



## STUDENTS ACHIEVEMENT

### **Research Contribution:**

- 1. Madhuri Chavan (B. Sc. III): State level, 2015
  - III rd prize winner in Avishkar Research Activity of Shivaji University, Kolhapur.
- 2. Pooja Deshmukhe (B. Sc. II): Regional level, 2014

Ist Prize winner in Life Sciences Poster Presentation Competition.

3. Active Participation in Poster Presentation Competition, 2014

"Biofuels: Status, Concept and Development" Organized by Dept. Of Microbiology, Shivaji University, Kolhapur



## RESEARCH PROJECTS OF FACULTY

Completed and Ongoing projects: (2010-2016)

S.N.	Title of Project	Name of PI	Status	Amount (Rs)	Funding Agency
1	Agro-ecological Studies on the arid drought prone region of Sangli District.	Dr. S. S. Sathe	On going	3,50,000/-	UGC (2014-2016)
2	Studies on status and ecology of fresh wetlands in arid zone of Sangli district.	Dr. A. A. Patil	Completed	1,40,000/-	UGC (2013 - 2015)
3	Bryofloristic Studies on Liverworts and Hornworts from few Forts of Kolhapur district (Maharashtra).	Dr. R.A. Lavate	Completed	1, 10, 000/-	UGC
4	The role of Research Centers for Improvement in Distance Education Program	Dr. S. S. Sathe	Completed	13000/-	Shivaji University
5	Role of Information and Communication Technology in Distance Education	Dr. S. S. Sathe	Completed	12000/-	Shivaji University
6	Studies on the Quality Assurance Mechanism in Distance Education	Dr. S. S. Sathe	Completed	13000/-	Shivaji University
	,	tcome Rs.	6,38,000/-		



### **RESEARCH PUBLICATIONS**

(2010-2016)

Sr.	Name of Taxaları	Level of Pub	lications	T-4-1	Total Impact factor	
No.	Name of Teacher	International	National	Total		
1	Dr. Kulkarni N. A.	02	08	10	0.7	
2	Dr. Patil A. A.	14	09	23	3.5	
3	Dr. Dangat B. T.	04	14	18	0.8	
4.	Dr. Sathe S.S.	06	08	14	0.6	
5	Mr. Andoji Y. S.	17	00	17	5.0	
	Total Publications	43	39	82		



# PARTICIPATION OF FACULTY IN SEMINARS & CONFERENCES (2010-2016)

Sr.	Nome of the Tooks	No. of Paper P	T-4-1	
No.	Name of the Teacher	International	National	Total
1	Dr. Kulkarni N. A.	02	02	04
2	Dr. Patil A. A.	06	17	23
3	Dr. Dangat B. T.	04	12	16
4	Dr. Sathe S. S.	03	10	13
5	Mr. Andoji Y. S.	01	03	04
	Total Presentations	16	44	60



### BOOKS PUBLISHED (2010-2016)

Sr. No.	Name of the Faculty	Number of Books	Publisher
1.	Dr. N. A. Kulkarni	Practical Book (B.Sc.II)	Phadke Prakashan, Kolhapur
		Practical Book (B.Sc.II)	Tejas Prakashan, Kolhapur
		Co-author of the book Microbiological applications and Environment (ISBN- 978-93-5056-515-5)	Discovery Publishing House Pvt.Ltd. New Delhi
2.	Dr. A. A. Patil	Practical Book for B. Sc. I and II	Phadke Prakashan, Kolhapur



### **OUTREACH ACTIVITIES**

### **Biodiversity Conservation and Awareness**

- **!** Environment and its Care
- **❖** Need of Forests Development in India and its uses
- ❖ Science-Definition, Scope, Nature and Feature"
- **\*** Remote Sensing
- **❖** Coastal Ecology
- **\*** Mangrove
- **❖** Wild edible vegetables Conservation and Use
- **❖** Natural Colours
- **\*** Women Empowerment



### AREA OF CONSULTANCY

- > Agriculture
- **Environment protection and Plantation**
- Remote Sensing and Coastal Ecology
- **▶** Identification, Cultivation and Conservation of Medicinal Plants
- > Organic Farming
- Cropping Pattern
- > Irrigation Methods
- **Bio control and Pest Management**
- > Supply of Pure Culture of Trichoderma and Isolates of Fusarium.

Free Consultation as a social responsibility.



### TEACHERS ACHIEVEMENTS

- Awards: 1. National Level Best Paper Presentation Award in conference to Andoji Y. S
  - 2.State Level Best teacher award by The Ajinkya Tara Pratishthan, Jat to Dr. N. A. Kulkarni.
  - 3.University Level First Prize in essay competition for research students on Biotechnology Day to Dr. B.T. Dangat.
- Fellowships: 1.National Level Honorary Fellowship of National Association to Dr. A. A. Patil .
  - 2.National Level President, All India Foundation for Disaster

    Management to Dr. A. A. Patil.
  - 3. National Level Honorary Fellowship of Society of Environmental Sciences, Dhumka (Bihar). To Dr. S. S. Sathe.



# NEWS PAPER ARTICLES (AS A OUTREACH ACTIVITY)



Day
2nd February2013.

International Women
Day 8<sup>TH</sup> March 2012



### **ACTIVITIES IN THE DEPARTMENT**

- National Conference (Interdepartmental Collaboration)
   on 23-24 Sept 2013, entitled Frontiers in Chemical and
   Biological Sciences
- One Day Seminar on Awareness of Biodiversity on 10/03/2012
- 2. Exhibition of Medicinal Plants on 19/03/2013.

### **ACTIVITIES: AWARENESS OF BIODIVERSITY**



Dr. Vinod Shimple
Biodiversity of Western Ghats



Prof. Shekhar Mohite
Plants of Kas Plateu



Shri. Prasad Magdum
Role of Animals in Biodiversity







Principal Dr. R. R. Kumbhar: Presidential Speech

Student's feedback



### **EXHIBITION OF MEDICINAL PLANTS**



Inauguration by Principal Dr. Kumbhar





Visit of Staff members to Exhibition







Participating students of B. Sc. II

Visit of Ayurvedacharya Dr. Gandhale and Thorat

### **NATIONAL CONFERENCE FCBS 2013**



Dr.M. M. Salunkhe, Vice Chancellor Central Univ. Rajsthan Inaugural and Keynote speech



Dr. I.K. Pai, Goa University, Goa Biodiversity of Antarctica continent



Dr. D. G. Naik, Scientist, Agarkar Research Institute, Pune



Dr. P. G. Diwakar, JD, BSI Pune Biodiversity of Andman



Dr. Ashok Giri, Sr. Scientist, CSIR-NCL, Pune plant insect interactions



Prof. S. V. Nikam
Environmental Pollution



# PARTICIPATION IN INSTITUTIONAL SOCIAL RESPONSIBILITY (I.S.R.)



Hb & HIV tests 2012,2013



New Horizon Activity



Awareness Programme for girls



Personality and beauty
Culture course



Workshop on Physical and Mental Health



Workshop on Rights and responsibilities



### **COLLABORATION AND MOU**

Sr. No.	Institute	Purpose
1	Nikhil Analytical and Research	Detection of Soil Enzymes Conformation of Fungal
	Laboratories, Sangli.	species
2	Joglekar Analytical Laboratory, Tasgaon	MPN Analysis
3	Department of Botany, Shivaji University, Kolhapur.	Taxonomy of the plants
	T	
4	Interdepartmental collaboration:	National Conference
	1. Chemistry	New Horizon Activity
	1. Chemistry	Pest management
	2. Zoology	Statistical analysis
	3. Statistics	



### **ALUMNI**

S. N.	Name of the student	Career
1	Zambare Nutan Dinkar	M. Sc.
2	Mane Archana Arjun	M. B. A.
3	Hingmire Varsha Bandopant	M. Sc.
4	Mali Sonali Subhash	M. Sc.
5	Bhosale Sadhana Balaso	M. Sc.
6	Gadhire Dipali Vikram	M. Sc.
7	Raste Shamal Bhagwan	M. Sc.



### INNOVATION AND BEST PRACTICES

- Green College Project Plantation for Women Park.
- Collection, identification and preservation of plants in shade net house.
- Display of Plants Collected by the Students with their Botanical Names











### VISIT OF EMINENT PERSONALITIES



Dr.T. G. Jagtap, Scientist, NIO, Goa



Dr. Hemal Kanvinde, Director, A. E. R. C. P. Chennai



Dr. B. S. Ravikumar Environmentalist, Karnataka



Dr. S. R. Yadav, Prof. and Head, Shivaji Uni. Kolhapur



Prof. G. B. Dixit. Shivaji Uni. Kolhapur



Prof. N. S. Chavan Shivaji Uni. Kolhapur



**VISIT TO SHADE-NET HOUSE** 

DR. P. G. DIWAKAR,

EX JOINT DIRECTOR,

BOTANICAL SURVEY OF INDIA, (WRO) PUNE



### **SWOC ANALYSIS**

### **Strengths**

- ➤ All faculties with Ph. D. engaged in active research
- ➤ Laboratory recognized for M. Phil. And Ph. D. research work
- ➤ 05 Minor Research Project completed and 01 is ongoing
- ➤ Well-equipped laboratories
- ➤ Consistently good results.

### **≻**Weakness

**➤** Unaided B. S c. III

### **Opportunities**

- To start P. G. Course and
- **▶** Short term courses on
- 'Horticultural Techniques'
- **➤** To undertake
- ethenobotanical preparations

(Churn, Bhasma, Asva, Arista)

➤ Preparation of Biopesticides and Biofertilizers.

### Challenges

- ➤ Organization of a International Conference
- > To Introduce a short term courses on 'Plant Horticultural techniques.



### **FUTURE PLANS**

- To start Post Graduate course
- To help the farmers for checking the soil health card
- To introduce a short term applied courses
- To initiate collaborative and interdisciplinary research activities
- To organize a International Conference
- Commercial Production of Pure Microbial Cultures
- To prepare Biodiversity Register of Tasgaon Jurisdiction

#### DEPARTMENT OF BOTANY AT A GLANCE

- Year of establishment: UG 1982, B. Sc. III 2013, Research Recognition 2013
- Infrastructure: Labs 3, Shade House 1
- Research Instruments: Laminar Air Flow (Centrally Available), Double Beam Spectrophotometer, Centrifuge, Soil & Water Analysis Kit, Trinocular and Stereoscopic Microscopes.
- Learning Resources: Ref. Books 336, Text Books 237, Pract. Books 70, Journals 12, N-LIST Online
- Journals 12, e-books.
- Working Faculties: Teaching Staff 05 ( 03 Ph.D), Nonteaching staff 3.
- **Students profile**: Every year 100% Result 06 students registered for Ph. D.
- Faculties contributed in designing of curriculum in Shivaji University, Kolhapur: 03 Research Guides, BOS Members, Paper setters.
- **Results and Students Progression:** 33 % ( 07 out of 21)
- **Research Activities**: MRP Completed 05, MRP Ongoing 01.
- Research Papers Published: International 43, National 39
- Conferences/ Seminars and Workshops Abstracted: International 16, National 44
- Conferences/ Seminars and Workshops attended: 58
- Books Published:05
- **Teacher's Achievements**: Awards: 03(1 National), Fellowships 03 National.
- Remedial Teaching for slow learners: Yes
- Evaluation Methods: Unit Tests, Class Tests, Seminars.

- Consultancy: Agriculture, Environment protection and Plantation, Remote Sensing and Coastal Ecology, Identification Cultivation and Conservation of Medicinal Plants, Organic Farming, Cropping Pattern, Irrigation Methods, Bio control
- and Pest Management, Supply of Pure Culture of Trichoderma and Isolates of Fusarium.
- Interactive teaching Methods: PPT Presentation by LCD Projector, Surprise Test, Group discussion, Seminar, Lecture, Use Of Charts Slides, Models, Field visits.
- Student's Achievements: Ist and III rd Prize winner in State Level Competition.
- Conference/Workshop Organized: 01 National ( Interdepartmental) 02 Seminars University Level.
- Innovative Activities: New Horizon, Green College Project-Women Park, Collection and Preservation of medicinal plants.
- **Departmental Strengths**: All faculties with Ph. D. engaged in active research, Laboratory recognized for M. Phil. And Ph. D. research work, 05 Minor Research Project completed and 01 is ongoing, consistently good results.

#### • Future Plans:

To help the farmers for checking the whole soil health,
To introduce a short term applied courses
To initiate collaborative, interdisciplinary research activities
To organize a International Conference
Commercial Production of Pure Microbial Cultures

To prepare Biodiversity Register of Tasgaon Jurisdiction

