

*Shri Shivaji Education Society Amravati's  
Science College, Congress Nagar, Nagpur  
Internal Quality Assurance Cell*

**DEPARTMENT OF BOTANY**

**INTERNAL ACADEMIC AUDIT**

**2023-2024**

**1. A. Faculty Strength:**

Faculty	Recruited	Vacant	Remarks
Regular	05	--	
CHB	--	--	
Ad-hoc	--	--	
Non-teaching	02	01	

**B. Faculty profile**

Name	Highest Qualification	Designation	Specialization	Teaching Experience
Prof. R.N.Deshmukh	M.Phil., Ph.D.	Professor & Head	Algae & Cytogenetics	36
Prof. P.S.Tiwari	M.Phil., Ph.D.	Professor	Aerobiology & Plant Tissue Culture	25
Dr. R.H.Mahakhode	B.Ed., Ph.D.	Assistant Professor	Cytomorphology & Cytogenetics	12
Dr. R.P.Sonwalkar	Ph.D.	Assistant Professor	Plant Biodiversity	05
Dr. Mrs.S. S. Deshmukh	M.Phil.Ph.D	Assistant Professor	Taxonomy of Angiosperm	05
Ms S. R. Agarwal	M.Sc NET &	Ad-hoc Lecturer	Genetic	01

	GATE		Engineering & Molecular Biology	
Ms Aishwarya Zhurey	M.Sc	Ad-hoc Lecturer	Physiology	01

## 2. Students strength A. (Winter 2023)

Year	Group	Number of Students Admitted
B.Sc. Semester I	CBM	20
	CBZ	47
	CBG	21
	<b>Total</b>	<b>88</b>
B.Sc. Semester III	CBM	28
	CBZ	46
	CBG	15
	<b>Total</b>	<b>89</b>
B.Sc. Semester V	CBM	24
	CBZ	45
	CBG	19
	<b>Total</b>	<b>88</b>
M.Sc. I		<b>09</b>
M.Sc. II		
Ph.D.		
Value Added Program		

## B. (Summer 2024)

Year	Group	Number of Students Admitted
B.Sc. Semester II	CBM	20
	CBZ	47
	CBG	21
	<b>Total</b>	<b>88</b>
B.Sc. Semester IV	CBM	28
	CBZ	46
	CBG	15
	<b>Total</b>	<b>89</b>
B.Sc. Semester VI	CBM	24

	CBZ	45
	CBG	19
	Total	<b>88</b>
M.Sc. I		<b>09</b>
M.Sc. II		
Ph.D.		
Value Added Program		

#### 4. Students Performance

##### A. Result Analysis (Winter 2023) UG & PG

Programme Code	Programme Name	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
	B.Sc Semester- I	83	42	50.60%
	B.Sc Semester- III	86	72	83.72%
	B.Sc Semester- V	84	69	82.14%
	M.Sc Semester –I	9	2	22.22%

##### B. Result Analysis (Summer 2024 ) UG & PG

Programme Code	Programme Name	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
	B.Sc Semester- II			
	B.Sc Semester- IV			
	B.Sc Semester- VI			
	M.Sc Semester -II			

##### C. Achievements

###### A- (Medals/Awards/Prizes at University level)

Sr.No.	Name of the Students	Class	Title
1	Ms. Devendra Giri (1 <sup>st</sup> Prize)	B.Sc Sem. VI	<b>“Green Rakhi Competition</b> on the occasion of <b>“Raksha-Bandhan</b> organized by Department of Botany on dated 26 <sup>th</sup> August 2023.
2	Ms. Rasika Patil (2 <sup>nd</sup> Prize)	B.Sc Sem. IV	<b>“Green Rakhi Competition</b> on the occasion of <b>“Raksha-Bandhan</b> organized by Department of Botany on dated 26 <sup>th</sup> August 2023.
3	Ms. Janhvi Burde (3 <sup>rd</sup> Prize)	B.Sc Sem. VI	<b>“Green Rakhi Competition</b> on the occasion of <b>“Raksha-Bandhan</b> organized by Department of Botany on dated 26 <sup>th</sup> August 2023.
4	Ms. Avantika Srikant Mule and Soumya Yadav (Consolation prize)	B.Sc Sem. I	<b>“Green Rakhi Competition</b> on the occasion of <b>“Raksha-Bandhan</b> organized by Department of Botany on dated 26 <sup>th</sup> August 2023.
5	Ms. Shreya Wankhede (Consolation prize)	B.Sc First year CBZ	Intercollegiate poster competition on Geographical Indication on dated

**B- Merit Position of PG Students in RTMNU (for PG Dept. only): NA**

**5. Students Progression:**

Year	No. of students enrolling into higher Education	Program graduated from
2023-24	03	<ul style="list-style-type: none"> <li>• 02- Shri Shivaji Science College, Congress Nagar, Nagpur.</li> <li>• 01-Institute of Science, Nagpur</li> </ul>
	PG to Research	
	Placement	
	On campus	

	Off campus	
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**Students' publication in Extra-curricular activity - Nil**

Title of the Paper/Book	Name of Author	Title of journal/Book	Year of publication

**(i) Students' Extension Activity**

Sr. No.	Name of Activity (Online)	Participation
1.	World Environment Day	158
2.	World Nature Conservation Day (“International Year of Millets-2023” )	68
3.	Plant Tissue Culture Technique	35
4.	Plant Propagation Techniques	83
5.	Mushroom Cultivation	38

**(ii) No. of Students pursuing higher course : 03**

( 02-Shri Shivaji Science College Congress Nagar, Nagpur.  
01-Institute of Science, Nagpur)

**(iii) Students' participation in conference /seminar : Nil**

Sr. No.	Name of Students	Conference type	Participation as
1.			

**(iv) Students' Learning course through-on-line : Nil**

## 6. Faculty

### I. Research Paper Publications

#### A. Total Number of publications:

- i) International : RHM – 01  
: SSD- 03
- ii) National :

#### B. Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding selfcitation
Synthesis and photoluminescence properties of NUV excited Ba <sub>2</sub> MgWO <sub>6</sub> :Mn <sup>2+</sup> phosphor	Dr. R. H. Mahakhode	Bulletin of Material Science. (Published by Indian Academy of Sciences)	2023-24			
GC-MS Analysis & conservation Of Ethnomedicinal aromatic Plant <i>Anisomelis indica</i> 2024, Vol. 5, Issue 1, Part A	Dr. Sharayu S. Deshmukh	International Journal of Pharmacognosy and Life Science 2024; 5(1): 5356	2023-24			
<i>Leucas aspera</i> A Medicinal Plant & GC-MS Analysis with significant Oil Properties In	Dr. Sharayu S. Deshmukh	International Journal of advance & Applied Research	2023-24			

Leaves		(IJAAR)				
The Impact of the Environment On sustainable Development & the Importance of Plants science	Dr. Sharayu S. Deshmukh	International Journal of advance & Applied Research (IJAAR)	2023-24			

**C. Faculty participation in conferences/seminar/workshop and symposia:**

Name of the Faculty	Title of Conference/ Seminar/ workshop	Period	Level International / National/State /University /College	Whether Presented papers	Whether abstract /paper published in Souvenir/Abstract Book
Prof. R.N. Deshmukh	International Conference on Chemical Advanced Sustainable Futuristic Materials	26 <sup>th</sup> -27 <sup>th</sup> April 2024	International	Yes	Yes
Prof. P.S. Tiwari	International Conference on Chemical Advanced Sustainable Futuristic Materials	26 <sup>th</sup> -27 <sup>th</sup> April 2024	International	Yes	Yes

Dr. R.H. Mahakhode	International Conference on Chemical Advanced Sustainable Futuristic Materials	26 <sup>th</sup> -27 <sup>th</sup> April 2024	International	Yes	Yes
Dr. R.P. Sonwalkar	International Conference on Chemical and Biological Sciences (ICCBS) - 2024	27 <sup>th</sup> -29 <sup>th</sup> January 2024	International	Yes	Yes
Dr. Mrs.S. S. Deshmukh	International Symposium And Xlvi All India Botanical Conference Of IBS On “Synergy In Plant Science And Sustainable Future”	Universit y 4 Nov. To 6 <sup>th</sup> Nov 2023	International	Yes	Yes
Dr. Mrs.S. S. Deshmukh	<b>7 day Workshop Through The Lens</b>	MSFDA 20 <sup>th</sup> Nov to 26 th Nov 2024  RTMNU, Nagpur	State Level		
Dr. Mrs.S. S. Deshmukh	International Conference on Functional Materials-2024	16 <sup>th</sup> -17 <sup>th</sup> March 2024	International	Yes	Yes
Dr. Mrs.S. S. Deshmukh	National Conference on Multidisciplinary Research & studies	20 <sup>th</sup> March	National	Yes	Yes
Dr. Mrs.S. S. Deshmukh	International Conference on Chemical Advanced Sustainable Futuristic Materials	26 <sup>th</sup> -27 <sup>th</sup> April 2024	International	Yes	Yes

**D. Awards to Faculty members :**

Name of Teacher	Title of the Award	Title of Agency/Conference	National/ International
Dr.Mrs. S. S. Deshmukh	Best Oral Presentation Award	International Conference on Functional Materials2024	International



7. MOU<sup>s</sup> signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year : **Nil**

Date of MOU	Organization	Purpose/Activity	Student Participate under MOU
02/03/2024	MOU with Organo Mushroom	Skill Based Course and OJT	YES
14/03/2024	MOU with Swachh Association	Cleanness of college campus	YES

8. **Research funds sanctioned and received from various agencies, industry and other organizations : Nil**

Nature of the Project	Duration	Name of funding Agency	Amount Sanctioned	Amount Received

9. **Books Published :**

	Book		Book Edited
	Title	ISBN and Date	Chapter
Dr. R.P. Sonwalkar	Green Nanoparticles: Synthesis characterization and Antimicrobial activity	ISBN No. 978-81-963506-2-8	Chyren Publisher
Dr.Mrs. S. S. Deshmukh	Ethonomedicinal& GC-MS Analysis Of aromatic Plant <i>Leonotis nepitifolia</i> (L).	ISBN No. 978-93-94819-63-4 (Web:https://jkpub.in)	Dr.Y.Savithri Dr.P.Ravi Sekhar

**Patent Published:**

Name of Teacher	Title	Publication Date	Application No
Prof. R. N. Deshmukh	Process For Synthesis Of CUO Nano particles By Using Angelonia Angustifolia Plant Extract	11/08/2023	32/2023
Dr. R.P. Sonwalkar	Micro-Biological Thin Film Adsorbent For Metal Separation	15/12/2023	202321077321 A

10. **Research Guidance by Faculty during the year :**

Name of the guide	Ph.D		
	Awarded	Submitted	Registered

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### **11. Alumni engagement**

- a. Contributes significantly to the development of the institution through financial and other supports: Nil
- b. alumni contribution during the year : Nil

### **12. Action Plan of the Department**

1. To celebrate World Environment Day.
2. To celebrate World Nature Conservation Day.
3. To organize various Eco-friendly activities.
4. To conduct workshop on Nursery Technique.
5. To organize workshop on Herbal technology.
6. Project on Hydroponics by students
7. Project on Nursery Management and Roof top Soilless farming by students.
8. To plan excursion tour
9. To organize student seminars
10. To organize guest lectures
11. To conduct workshop on Plant Tissue Culture
12. To encourage the students in various curricular & Extra-curricular activities
13. To organize workshop on Mushroom Cultivation under skill base course
14. To encourage staff to participate in various National & International events

### **13. Best Practices of the department**

- Green Activities – Green Rakhi Competition (Exhibition),
- Student's participation in celebration of World Environment day and World Conservation Day organized by department of Botany.
- Student's participation in workshop on Plant Propagation Techniques organized by department of Botany in Association with Nikalas Mahila Mahavidyalaya, Nagpur.
- Student's participation in workshop on Plant Tissue Culture Techniques.
- Student's participation in workshop on Mushroom Cultivation.
- Student's participation in Guest lecture. Project on Hydroponics by students

- Project on Nursery Management at Roof top Soilless farming by students.

## SWOT Analysis

### Strength

- 
- Qualified, Competent and Experienced Staff.
- Committed non- teaching staff.
- Disciplined and hard working students.
- Well furnished and equipped Department. □ Safe and secured environment for co-education □ Democratic functioning.
- Various options available with Botany subject.
- Skill base certificate course on Mushroom Cultivation.
- Self-finance certificate course on Plant Tissue Culture.
- Botanical society for students.
- Good results with distinction.
- Focus on emotional & mental health of the students through Teacher Mentor Scheme.
- Parent-teacher interaction is encouraged.
- Seminars, counseling, personality development, guest lectures and Awareness programs are regularly arranged.

### Weakness

- High drop out ratio due to poor socio-economic status of the students.
- Lack of risk taking ability.
- Average students seek admission in the subject.
- Moderate employment opportunity.
- Slow economic and industrial growth of Nagpur region.
- Decline of students' academic interest in pandemic (Covid-19).

### Opportunity

- Employment potential in Forest department, various scientific institution e.g, NEERI, Ankur Seeds, Mahyco, CICR, CCRI, MIHAN, NMC Nagpur □ Training and placement cell in college.
- Student faculty exchange programme.
- Seminars, workshop, conferences, inter collegiate competitions, science exhibition for overall development of the students.
- Visit to Scientific laboratories and various localities.
- Research guidance facility available to students.

## Threats

- Cut-throat competition in higher education.
- Declining interest of the students in basic science subject.
- Poor response of students during online classes during pandemic period.
- Majority of the students are facing emotional & mental health problems.
- Mushrooming of professional courses.



*P.S. Tiwari*

Prof.. P.S. Tiwari  
(Head Department of Botany)

HEAD  
DEPARTMENT OF BOTANY  
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