

## Environmental Consciousness Program

2017-18

### Plantation Program

Under this program Hon'ble, Principal Dr. S. G. Bhadange, Dr. A. S. Raut, Dr. G. V. Korpe and Dr. J. P. Mankar and other faculties from college and department with students of P.G on date 07/09/2017 planted medicinal plants in Botanical Garden. On the same day unit of "Biofertilizer Tumbler" was also installed in Botanical Garden.



### Cleanliness Drive

On date 24/09/2018 as per directions, given by UGC to organize "Swachhta Pakwada". Cleanliness was conducted by the participation of all teaching, non-teaching faculty and students of P.G and UG classes. The PG students were participated in cleanliness of botanical garden.



### **Plantation Program**

Under this program Hon'ble, Principal Dr.R.M.Bhise,Dr Devanand Atakare,Principal of Jarud College,Prof Dr A.U.Pachkhede, Dr. A. S. Raut, Dr.Sanjay Khaddatkar and other faculties from college /09/2018 planted medicinal plants in Botanical Garden. The teaching faculties,non teaching staff and PG students also participated in the activity.



**Plantation of Medicinal plants in Botanical Garden by Dignitaries**

“Every flower is a soul blossoming in nature” .... Keeping this in our spirits our Department organized Flower Exhibition on the occasion of 121 the Birth Anniversary of Dr. Punjabrao alias Bhausaheb Deshmukh on dated 15<sup>th</sup> of January 2020.

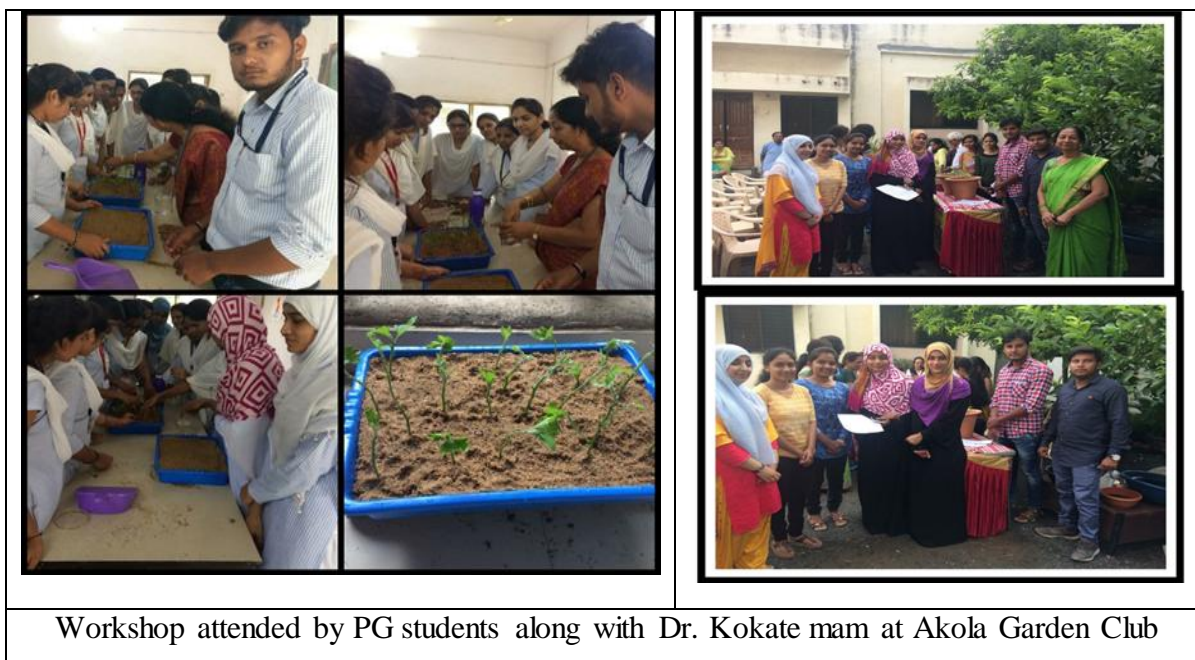
### **SOME GLIMPSES OF FLOWER ARRANGEMENT**





**Dignitaries Observing Flower Arrangement**

- 1) All the students and faculty members are actively participating in different programs. Workshop were attended by Post graduate students on date 1/9/2019 organized by Akola garden club on topic cultivation for *Chrysanthemum*. In this work shop all the student realized the importance of flower cultivation and also values of environmental Studies and their needs.
- 2) Dr. Pratiksha Kokate mam organized workshop at Department of Botany for PG students on cultivation of Chrysanthemum on Date 3/9/19. All the PG students were practicing the preparation of plantlet of Chrysanthemum and try to apply knowledge of Workshop of Akola Garden Club.



Workshop attended by PG students along with Dr. Kokate mam at Akola Garden Club

3) Department of botany organized excursion tour for the B.Sc. 2<sup>nd</sup> year students at Khakali region where students and faculty members try plastic waste removal from the forest area. Such practices motivate to students for their contribution to nature and also help in realization of responsibility about nature



All the students and faculty members carrying plastic waste from khatkali forest.

4) Department of botany bio compost unit is there and used in daily practice. One important objective of the biofertilizer unit is that we manage all the organic waste such as dry leaves, plant residues from the Department and Botanical Garden. These bio compost unit produced organic compost which further use as preparing Plantlets, plant sapling etc.



5) Department of Botany Celebrates the worlds Soil Day on date 5 December 2019 in Botanical garden by Preparation of potted plant, and plant Sapling for welcome function of college. The second purpose of preparation of potted plant is that we no need to purchase bouquet from the outside of the college. We also prepare plantlets of different seedling in Botanical garden such as *Polyalthia longfolia*, *Ficus religiosa*, *Ficus recemosa*, *Azadirachta indica* etc.



Department of Botany actively participates in the various extracurricular activity organized by the college. Students of the department participated in the campus beautification on the occasion of “Dr. Panjabrao Alias Bhausaheb Deshmukh Jayanti Utsav 2019”



Students of PG ( Botany) developing college Campus.



Picture of Pots along with plants transplanted with high efforts by PG students of

In this session of 2019-20 our department of Botany decide to celebrate the Forest Conservation Day by establishment of Seed Bank. Objective of this program is to conserve the seed germplasm with the help of students and faculty participation

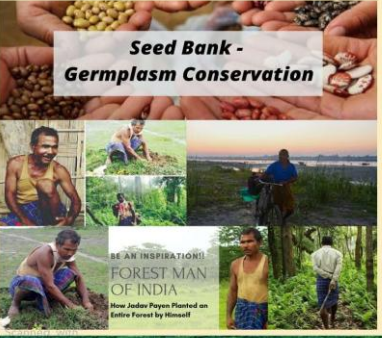
# Online Celebration of "Forests Conservation Day" on 23<sup>rd</sup> July 2020

Shri Shivaji Education Society, Amravati  
**SHRI SHIVAJI COLLEGE OF ARTS COMMERCE & SCIENCE, AKOLA**  
 NAAC Reaccredited with "A" grade College with potential of Excellence,  
 DST FIST Sponsored, Lead College Status by Parent University

**DEPARTMENT OF BOTANY AND IQAC**  
 Conducting

**Environment Consciousness Activity**  
**2020-21**

**Seed Bank - Germplasm Conservation**



BE AN INSPIRATION!  
**FOREST MAN OF INDIA**  
 How Jeeva Payen Planted an Entire Forest by Himself

**Introduction Of Activity :-**

Being a student of life science, you know the India is a land of varied flora diversity and is one of the twelve megadiverse nations of the world. Two of India's great mountain ranges these are Eastern Himalayas and Western Ghats have designated as world's 13 hotspots of biodiversity.

But in last few decades the rate of extinction of flora is steadily increasing, so now conservation of biological diversity is important to the survival of human beings.

So we are starting from this session environment friendly activity to conserve the flora in the form of germplasm. Which help to preserve the genetic diversity of plants. For plants germplasm may be stored as a seed collection.

**So, Dear Students**  
**How to Participate in Activity ?**

When we eat the fruits in all season, we throw the seeds as a waste, but this action of ours is causing loss of genetic diversity. While in some cases seeds from fruits after ripening are shedding below the tree and sometime get dispersed to cement concrete places where these seeds do not get fertile soil for germination. These seed also remain dormant and become loss of germplasm occurred, which is affecting conservation of Biodiversity.

**What is needful action ?**

Dear students you can perform following activities.

- Collect the seed from surroundings.
- Germinate the seeds, prepare saplings.
- Transplant the saplings at your home.

You can perform all these activities or any one which is possible to you.

**What next ?**

Send your picture along with the activity you have done. Send picture on given e-mail address & WhatsApp number.

Have a involvement in Environment friendly activity by staying at home.

Donate the collected seeds in department of Botany. We are preparing Seed Bank to conserve the seeds, to prepare the saplings & transplant them into soil. We also have decided to prepare the seed ball for nature welfare and spreading them into the forest during excursion tour with the help of students.

Your active participation is expected to run this activity successfully. We are waiting for your response.

On the occasion of "Forest Conservation Day" on July 23 2020 we will acknowledge and appreciate your name and your response. Nature always protect us but this activity will help to protect nature from our side.

But to protect the nature is not one man task, it is constructive and integrative work. Let us hope your active participation as tribute to Nature.

Thank you .....


**NOTE:- Submit your collected Seeds with your Name & Class after opening of college.**

<b>Dr. R. M. Bhise</b> Principal Shri Shivaji College of Arts, Commerce & Science, Akola	<b>Dr. A. S. Raut</b> IQAC Co-ordinator Shri Shivaji College of Arts, Commerce & Science, Akola
<b>Organizing Committee</b>	
Dr. P. P. Urmale HOD, Associate Professor	
<b>Dr. D. K. Koche</b> Associate Professor	<b>Dr. V. S. Patil</b> Associate Professor
<b>Mr. N. B. Choukhande</b> Assistant Professor	<b>Dr. A. V. Oke</b> Assistant Professor
<b>Mr. S. A. Rathod</b> Assistant Professor	<b>Dr. R. N. Patil</b> Assistant Professor

**For details Contact:-**

<b>Dr. R. N. Patil</b> Mo. No. - 9421905074	<b>Mr. S. A. Rathod</b> Mo. No. - 8300280778	<b>Dr. P. D. Deshmukh</b> Mo. No. - 9663050601
--	---	---

**E Mail ID :-** shubhamrathod28081995@gmail.com **WhatsApp no. :-** 7721960557

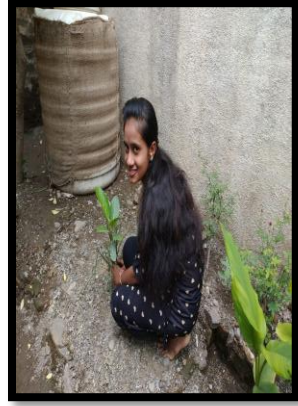
 <p><b>SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI</b>  <b>Shri Shivaji College of Arts, Commerce &amp; Science, Akola (MS)</b>          NAAC Reaccredited with A Grade (CGPA of 3.24) College with Potential for Excellence (Status by UGC) Lead College (Status by SGBAU, Amravati) DST-FIST Support</p>	<p><b>HOW TO PARTICIPATE DURING LOCKDOWN PERIOD?</b>  <b>Submit one or two photograph of your creativity with you.</b>          (Upload and Submit your creative work in the form of Images or PDF on this link <a href="https://forms.gle/RMB4U3fcp5J2AMAq9">https://forms.gle/RMB4U3fcp5J2AMAq9</a>)</p>
<p><b>DEPARTMENT OF BOTANY &amp; IQAC</b></p>  <p><b>Online Contest on the occasion of Celebration of "Forests Conservation Day" on 23rd July 2020</b></p> 	<p><b>Note:- Participant can participate in only one activity. Entries should reach on or before 22nd July 2020.</b></p> <p>Contest open for all faculty members &amp; students (UG &amp; PG). Prizes will be given from each Category. E-certificate will be issued to all Participants.</p> <p>Registration link :- <a href="https://forms.gle/9t1nrG9TSM3zefbG6">https://forms.gle/9t1nrG9TSM3zefbG6</a></p>
<p><b>WE ARE INVITING YOU FOR THE PARTICIPATION IN FOLLOWING CONTEST WITH RELATION TO CONSERVATION OF ENVIRONMENT</b></p>	<p><b>Dr. R. M. Bhise</b> Principal, Shri Shivaji College of Arts, Commerce &amp; Science, Akola</p> <p><b>Dr. A. S. Raut</b> IQAC Co-ordinator Shri Shivaji College of Arts, Commerce &amp; Science, Akola</p>
<p><b>POSTER</b> → Painting, Drawing, Pencil Sketching, Collage, etc.</p>	<p><i>Honourable Jury Members</i></p>
<p><b>CRAFT</b> → Papercraft, Wooden craft, Dry Plant waste Craft, Waste cloth craft, Bamboo Craft, Clay Model, Glass painting, Pottery, etc.</p>	<p><b>Dr. Varsha Shaha</b> Ex-Head &amp; Associate Professor, Department of Hindi, Shri Shivaji college, Akola</p> <p><b>Dr. Shalini Bang</b> Head &amp; Associate Professor Department of English, R.D.G. College, Akola.</p> <p><b>Dr. Mamata T. Sangole</b> Assistant Professor, Department of Chemistry, Shri Shivaji College, Akola</p> <p><b>Mr. Swapnil Ingole</b> Assistant Professor, Department of Marathi, R. D. G. College, Akola.</p>
<p><b>LITERATURE</b> → Poetry, Essay Writing, Story writing (Forest Tour Experience).</p>	<p><i>Organizing Committee</i></p> <p><b>Dr. P.P. Umale</b> HOD, Associate Professor</p> <p><b>Dr. D. K. Koche</b> Associate Professor</p> <p><b>Dr. V. S. Patil</b> Associate Professor</p> <p><b>Mr. N. B. Choukhande</b> Assistant Professor</p> <p><b>Dr. A. V. Oke</b> Assistant Professor</p> <p><b>Dr. P. D. Deshmukh</b> Assistant Professor</p> <p><b>Mr. S. A. Rathod</b> Assistant Professor</p> <p><b>Dr. R. N. Patil</b> Assistant Professor</p>
<p>Note:-          1) Submit literature in PDF format, should be in English/Hindi/Marathi language.          Poetry (Maximum 100 words), Story, Essay (Maximum 400 words)          2) In craft use only Eco-friendly Material.</p>	<p>For details Contact :-  <b>Mr. S. A. Rathod</b> Mb. No. – 8830820778  <b>Dr. R. N. Patil</b> Mb. No. - 9421005074  <b>Dr. P. D. Deshmukh</b> Mb. No. - 9665305601          E Mail ID :- <a href="mailto:shubhamrathod28081995@gmail.com">shubhamrathod28081995@gmail.com</a></p>

## GERMPLASM CONSERVATION ON THE OCCASION FOREST CONSERVATION DAY

Students Participation



Sankalp Gajghate B.Sc. 2nd Year



Komal Ganesh Kakad Class:- Bsc 3<sup>rd</sup> year.



Pracheta Hemant Sudke ( M.Sc. Part 1)



Vaishali Janrao Marodkar ( M.Sc. Part 1) Lemon plant , Mango plant



Sagar Bunde, (Botany)



Munsifa Anam Abdul Quddus M.Sc. Part 1



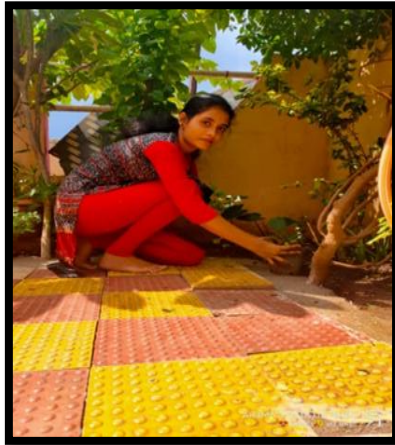
Bhagyashree Umesh Bhambere M.Sc. Part 1



Ashwini Kishor Fursule M.Sc. Part 1



Monika Ramesh Walchale M.Sc. Part 1



Megha Vilasrao Wagh M.Sc. Part 1



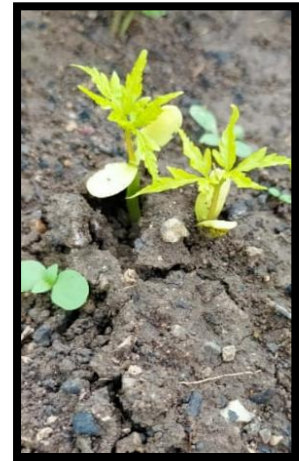
Vaishvi Pagrut M.Sc. Part 1



Vaishnavi Raut M.Sc. Part II



Bushra Anjum M.Sc.Part II (Botany)



Priti Lasurkar BSc II Year

### Faculty Participation



Mr. N B Choukhande Assistant Professor, Department Of Botany



Dr. Pratiksha Kokate Professor & Head, Department Of Botany



Dr. Anand Oke Assistant Professor, Department of Botany



Dr. Rasika N. Patil, Assistant professor, Department of Botany

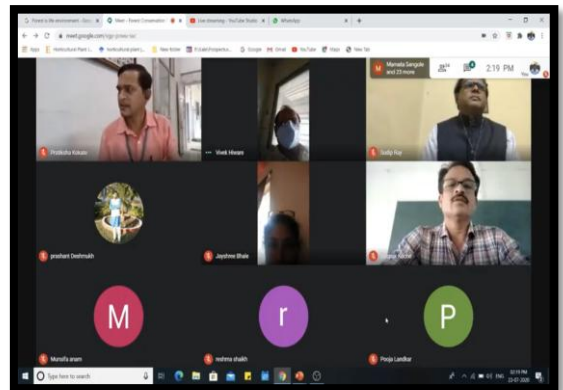
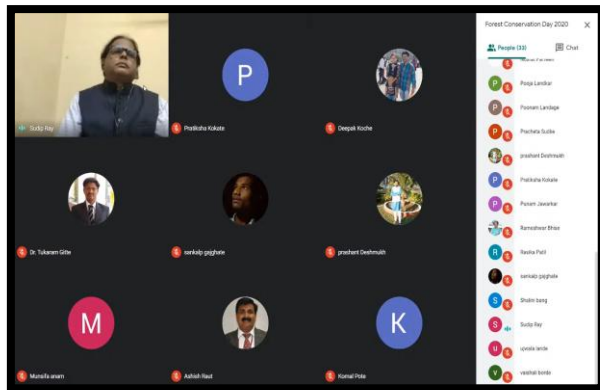
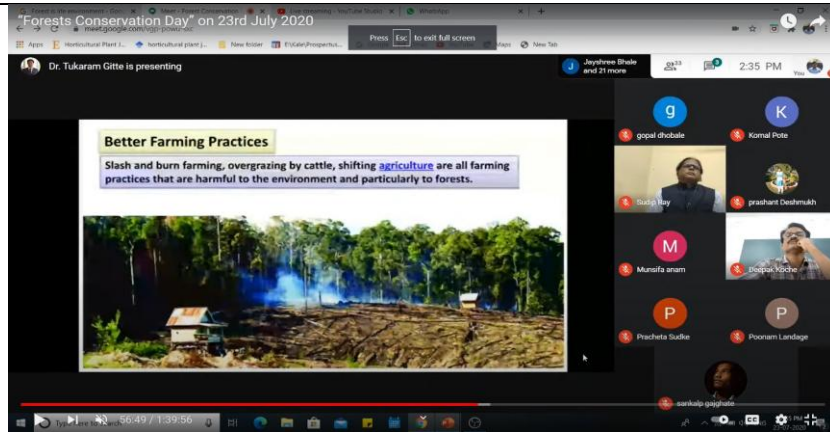
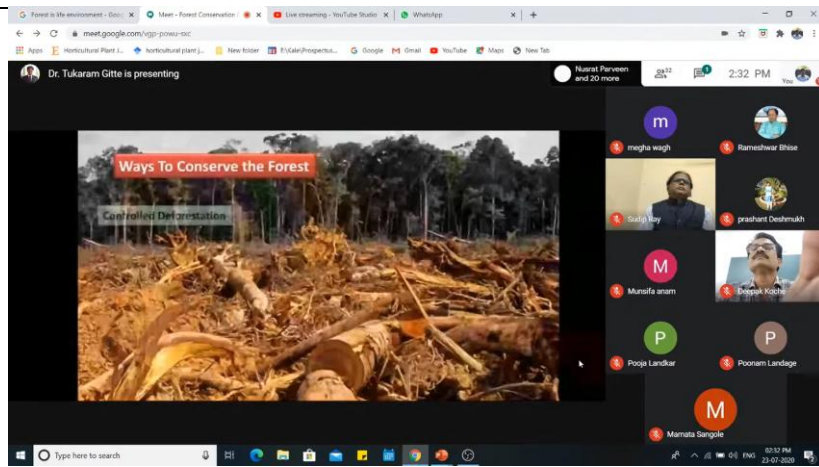
**Department of Botany**

**All the Faculty members participate in Plantation on the Occasion of Forest Conservation Day-2020**



**Department of Botany**

**Plantation in college Premises on the Occasion of Forest Conservation Day-2020**



One day State level Seminar on “Current Scenario of Botanical Research”, Funded by UGC (CPE Phase- II) and organized by the Department in collaboration of Botany Teachers Association, SGB Amravati University, Amravati- Dated 02<sup>nd</sup> February 2018.

“Current Scenario of Botanical Research”



Inaugural event -Inaugural Speech by- Hon. Nareshchandraji Thakare



Key note speaker- Dr. Archana Joshi, BARC Mumbai

Poster presentation competition



One day Regional workshop on Preparation of Bio-fertilizers"- Funded by IQAC, Shri Shivaji College of Arts commerce and Science, Akola (MS)- Dated 13<sup>th</sup> January 2018. [The event was organized for PG students and Farmers in collaboration of Dr. Panjabrao Deshmukh Krishi Vidyapith, Akola

### One Day Regional Workshop on "Preparation of Biofertilizer" – 13th Jan. 2018



**Chief guest- Shri Kesharaoji Metkar**



**Inaugurator- Shri Prakashji Pohare**



**Expert- Dr. S. S. Mane and Dr. Totawar**



**Participants of the Regional workshop**

Inter- University Poster competition for UG and PG students of Biological Sciences, organized by Department on dated 05/02/2019. [ The event was funded under UGC- CPE grant]

### Inter-University Poster Competition for UG and PG Students (5<sup>th</sup> Feb. 2019)

	
<p align="center"><b>Inaugural Event of Inter-University Poster Competition</b></p>	<p align="center"><b>Chief Guest Dr. S. N. Malode With HOD observing Posters</b></p>
	
<p align="center"><b>Valedictory function</b></p>	<p align="center"><b>Prize Distribution</b></p>

One day workshop on “Bonsai Making” for PG students, dated 21<sup>st</sup> January 2019.

<p align="center"><b>One day Workshop on “Bonsai Making” 21<sup>st</sup> Jan. 2019</b></p>	
	
<p align="center"><b>Inaugural Event</b></p>	<p align="center"><b>Experts Demonstration</b></p>
	
<p align="center"><b>Participant students</b></p>	<p align="center"><b>Dignitaries observing the outcome</b></p>

### Botanical Excursions



At- Chikhaldara range forest



At- Muktagiri and nearby forest area



At- Pench National Park



At- Tadoba National Park- Pauni Gate



At- ICRISAT- Hyderabad



At- NBPGR- Hyderabad

Webinar Series on Preparation for Competitive Exams in Life Sciences (26/05/2020 to 31/05/2020) organized by Department

### Webinar Series on Preparation for Competitive Exams in Life Sciences (26/05/2020 to 31/05/2020)

#### Who can appear/ Eligibility criteria

- M.Sc. or Equivalent degree holder students with at least **55%** marks for General & OBC (**50%** for SC/ST candidates, Physically and Visually handicapped candidates)
- Candidate enrolled for M.Sc. or having completed **10+2+3** years are also eligible to apply under the **Result Awaited (RA)** category.

#### Important Topics : Biochemistry

Non Covalent Interactions

Concept of pH

Protein Structure (Ramachandran Plot and Dihedral angles)

Structure and Types of DNA (Chargaff Rule, Sugar Puckering, Sin-Anti)

Lipids (Phospholipids and Glycolipids, PM Components.)

Enzymes (Kinetics, Michaelis Menten, Allosteric, Inhibition)

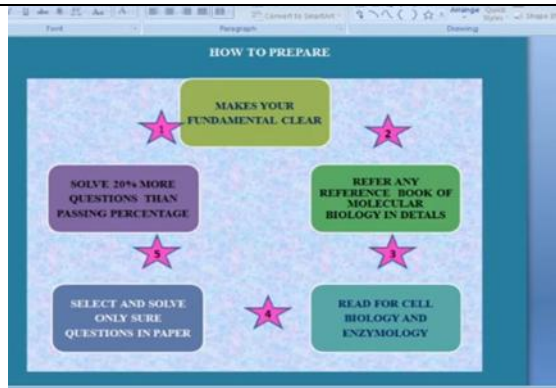
Metabolic Pathways (Glycolysis, Linkage, TCA, ETS, Cholesterol BS.)

Vitamins (Coenzymes, Blood clotting, Vision, Deficiency Disorders)

Thermodynamics ( $\Delta G$  Calculations of biochemical reactions)



Virtual Presentation by Mr. S. V. Hiwrale



Virtual Presentation by Mr. H. Jaiswal

### DBT – JRF (BET)

- Organising Agency: [Department of Biotechnology](#)
- Eligibility – PG Biotechnology or in any discipline of Life sciences with 60 % (55% for SC/ST)
- Applicable for –Fellowship only
- Website : <http://rcb.res.in/>
- Tentative date of Notification: March – April, every year
- Age and Attempt Limit: 28 years (relaxable upto 5 years for SC/ST) (relaxable upto 5 years for women candidates)

Virtual Presentation by Dr. P. D. Deshmukh

Virtual Presentation by Dr. A. A. Maheshwari



Virtual Presentation by Dr. V. Narkhedkar

International E-Conference on Innovative Research Trends in Life Sciences Organized by Department of Life Sciences. (3rd, 4th & 5th December 2020)

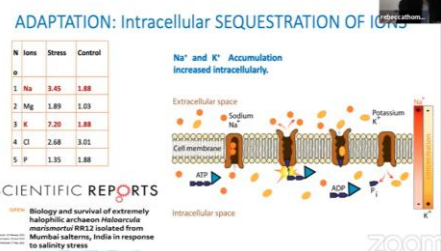
### International E-Conference on Innovative Research Trends in Life Sciences



**“Rural organic agri-entrepreneurship model: A small step for better future”**

**Prof. Dr. Krishnendu Acharya**

Molecular and Applied Mycology and Plant Pathology Laboratory, Department of Botany, University of Calcutta, 35, Ballygunge Circular Road, Kolkata – 700019, India

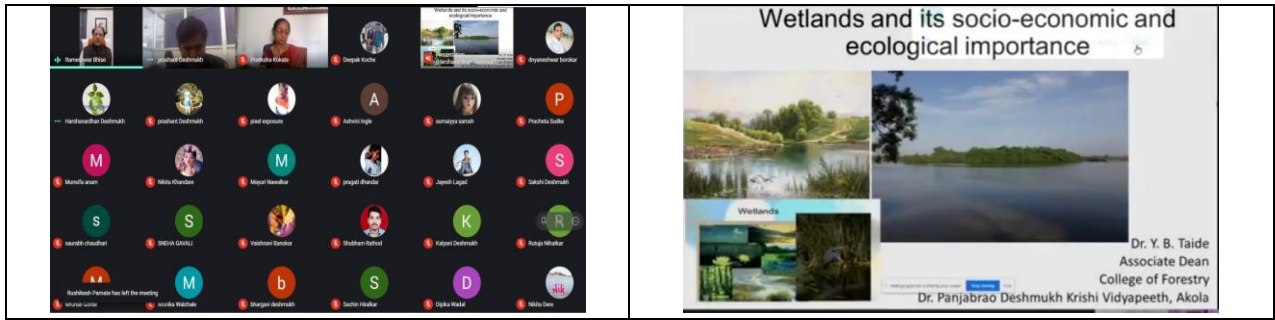


<p><b>Analysis of lead hit compounds</b></p> <p>Lead hit compounds showing growth and lipid accumulation after 72 h treatment</p> <p>Micrographs showing growth (B/F) and lipid accumulation (NR) for compounds: N+, N-, WD30067, WD30030, WD10784, WD10461, WD20542.</p> <p>Graphs showing Growth (OD600nm) and Lipid (mg/g DW) over time (0-72h).</p>	<p>Photographs showing plant roots and leaves, likely related to growth parameters in control and <i>P. indica</i>.</p>															
<p><b>Results.</b></p> <p><b>2. Determination of AHL using colorimetric method</b></p> <p>Bar charts showing AHL levels for <i>Salmonella</i> spp. and <i>E. Coli</i> under control, treated, and untreated conditions.</p> <p>All the three plant extracts have ability of reducing AHL levels and thereby can perform quorum quenching</p>	<p><b>Growth parameters in control and <i>P. indica</i></b></p> <table border="1"> <thead> <tr> <th>Treatments</th> <th>Leaf length (cm)</th> <th>Root length (cm)</th> <th>Root fresh weight (g)</th> <th>Root dry weight (g)</th> </tr> </thead> <tbody> <tr> <td>Control</td> <td>10.2</td> <td>12.5</td> <td>0.220 ± 0.014*</td> <td>0.087 ± 0.009*</td> </tr> <tr> <td><i>P. indica</i></td> <td>10.5</td> <td>13.0</td> <td>0.225 ± 0.015*</td> <td>0.090 ± 0.010*</td> </tr> </tbody> </table> <p>Figure 1: Growth of onion plant and roots in control (P-) and <i>P. indica</i> colonized (P+) treatments after 60 days post transplanting.</p> <p>Figure 2(A) <i>P. indica</i> chlamydiae spores within onion root. Scale bar 20 µm. (B) PCR detection of <i>P. indica</i> in DNA of onion roots. Lane 1: marker DNA; lane 2: <i>P. indica</i> colonized onion root DNA (+); lane 3: <i>P. indica</i> untreated root DNA (-).</p>	Treatments	Leaf length (cm)	Root length (cm)	Root fresh weight (g)	Root dry weight (g)	Control	10.2	12.5	0.220 ± 0.014*	0.087 ± 0.009*	<i>P. indica</i>	10.5	13.0	0.225 ± 0.015*	0.090 ± 0.010*
Treatments	Leaf length (cm)	Root length (cm)	Root fresh weight (g)	Root dry weight (g)												
Control	10.2	12.5	0.220 ± 0.014*	0.087 ± 0.009*												
<i>P. indica</i>	10.5	13.0	0.225 ± 0.015*	0.090 ± 0.010*												
<p><b>Domoic acid induced oxidative stress</b></p> <p>Diagram showing the pathway of domoic acid induced oxidative stress, involving ROS/RNS, lipid peroxidation, and DNA damage.</p> <p>Graphs showing ROS/RNS levels and lipid peroxidation (MDA) in response to domoic acid concentration.</p>	<p>Substances which can cause cancer are known as <b>carcinogen</b> and the process of cancer development is called <b>carcinogenesis</b>.</p> <p>Smoking and environmental agents can cause cancer.</p> <p>Mutation in certain genes</p> <p>Obesity causes cancer</p> <p>Age</p> <p><b>INDIA STORY: CANCER TRIUMPHS CAN BE CURBED</b></p> <p>In India, cancer cases are reported to be increasing every year. In India, every year, 1.5 lakh people die due to cancer. In India, 1.5 lakh people die due to cancer every year. In India, 1.5 lakh people die due to cancer every year.</p>															
<p>Zoom meeting grid showing participants: Dr. Rajchandra K. Subramanyam, Nishu Sonora, J.A. Tade, Rameshwar Singh, Anjali Kulkarni, and Anand Kulkarni.</p>	<p>Zoom meeting grid showing participants: Dr. Rajchandra K. Subramanyam, Nishu Sonora, and J.A. Tade.</p>															

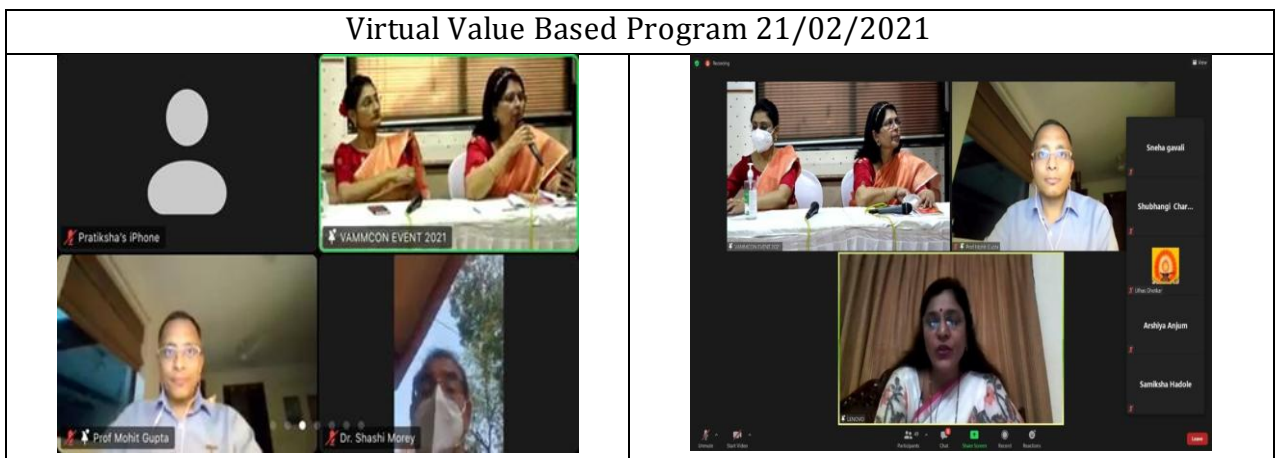
World Wetland Day Celebration 2021 Interuniversity “Wetland Photography Competition” Organized by Department in collaboration with IQAC on dated 2<sup>nd</sup> February 2021.

**World Wetland Day Celebration 2021 Interuniversity “Wetland Photography Competition”**

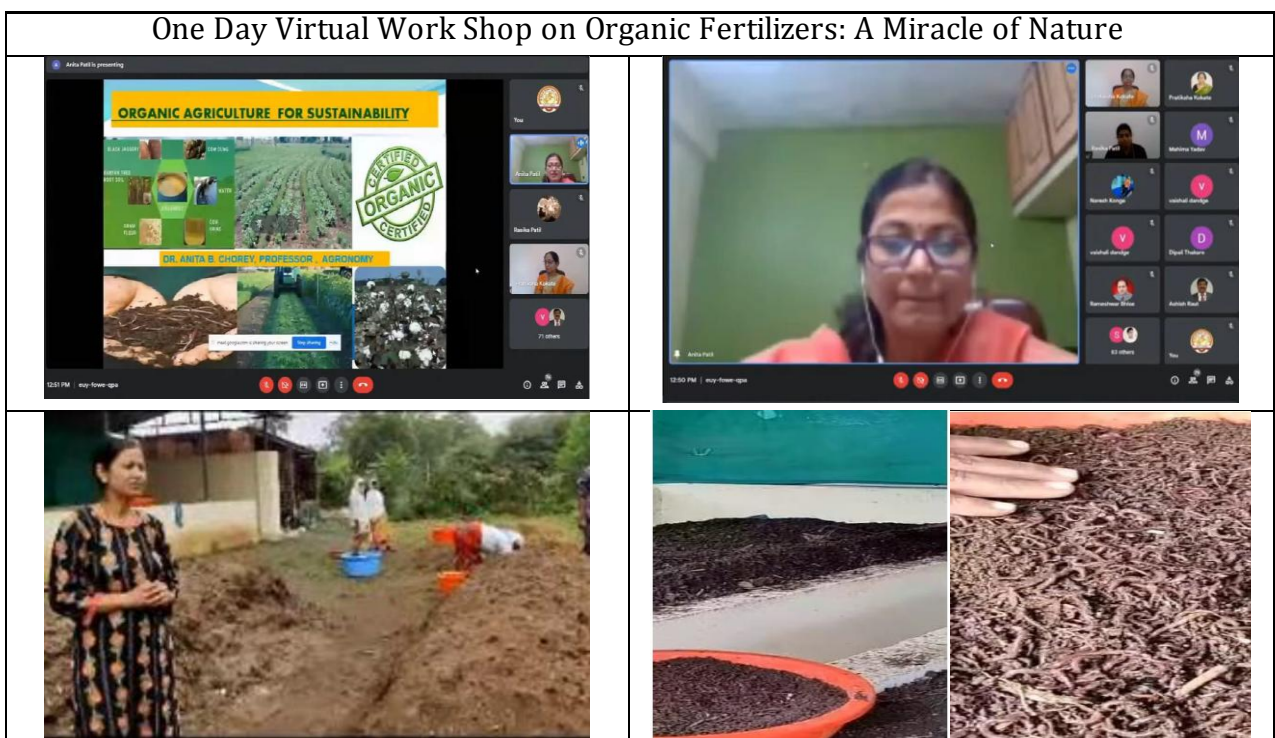
<p><b>Objective of Ramsar convention</b></p> <ul style="list-style-type: none"> <li>➤ To achieve and maintain the ecological character of the wetlands and facilitate sustainable use for the benefit of people and the environment.</li> <li>➤ It also mandates them to frame National Wetland Policies, form wetland inventories, conduct and create monitoring, research and awareness and prepare integrated management plans.</li> </ul> <p>Wetlands</p>	<p><b>Uses of wetlands</b></p> <ul style="list-style-type: none"> <li>Wetlands help maintain the ecological character of the wetlands and facilitate sustainable use for the benefit of people and the environment.</li> <li>Wetlands help maintain the ecological character of the wetlands and facilitate sustainable use for the benefit of people and the environment.</li> <li>Wetlands help maintain the ecological character of the wetlands and facilitate sustainable use for the benefit of people and the environment.</li> </ul>
---	--



Virtual Value Based Program 21/02/2021 Time - 4 to 5 PM organized by Department of Botany in collaboration with Woman Doctors Wing Akola, IMA

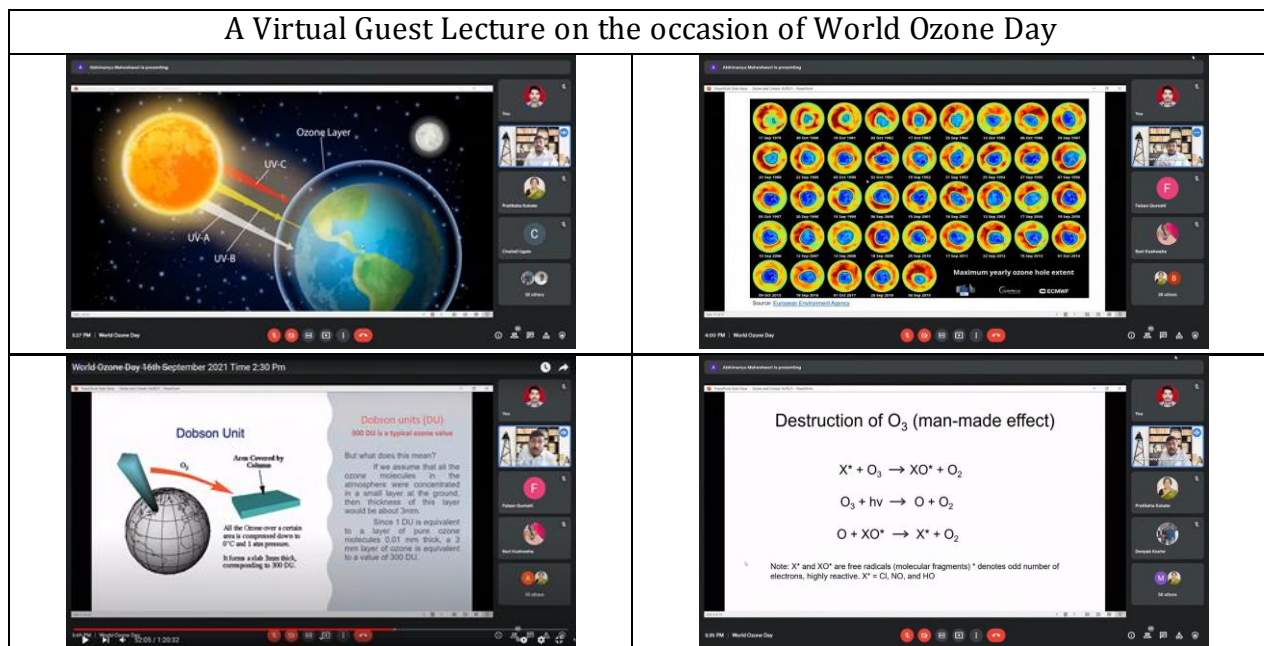


One Day Virtual Work Shop on Organic Fertilizers: A Miracle of Nature Organizing by Department of Botany and IQAC on dated 31/08/2021.



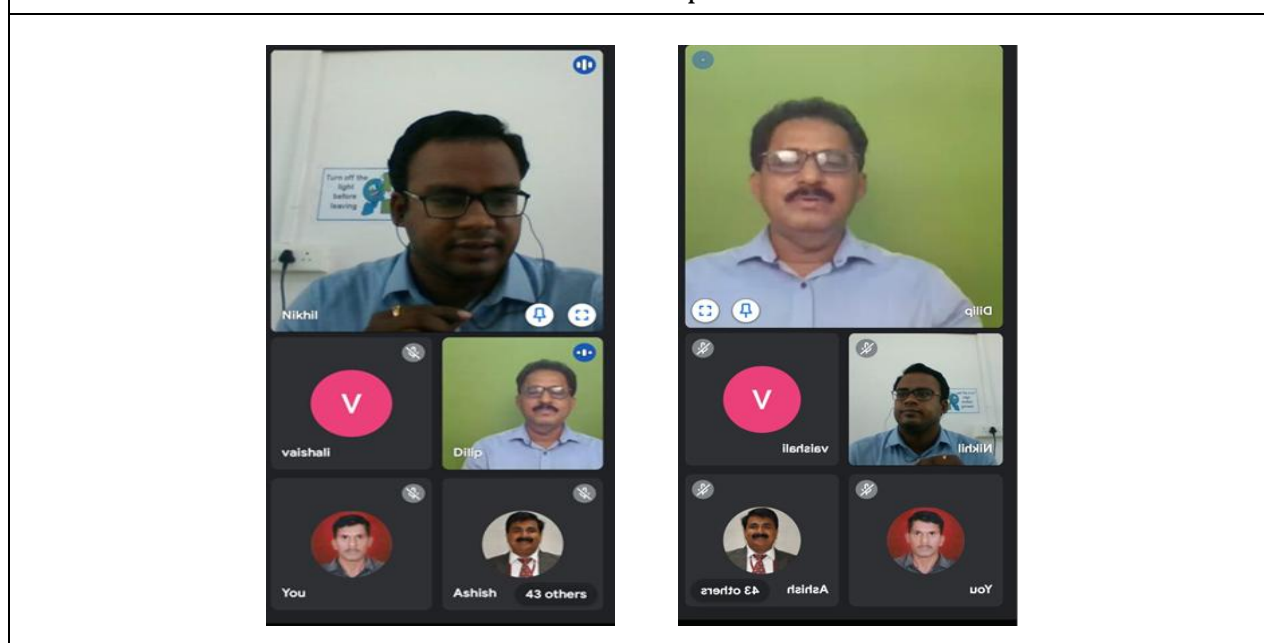
A Virtual Guest Lecture on the occasion of World Ozone Day Organized by Department of Botany & IQAC on dated 16<sup>th</sup> September 2021.

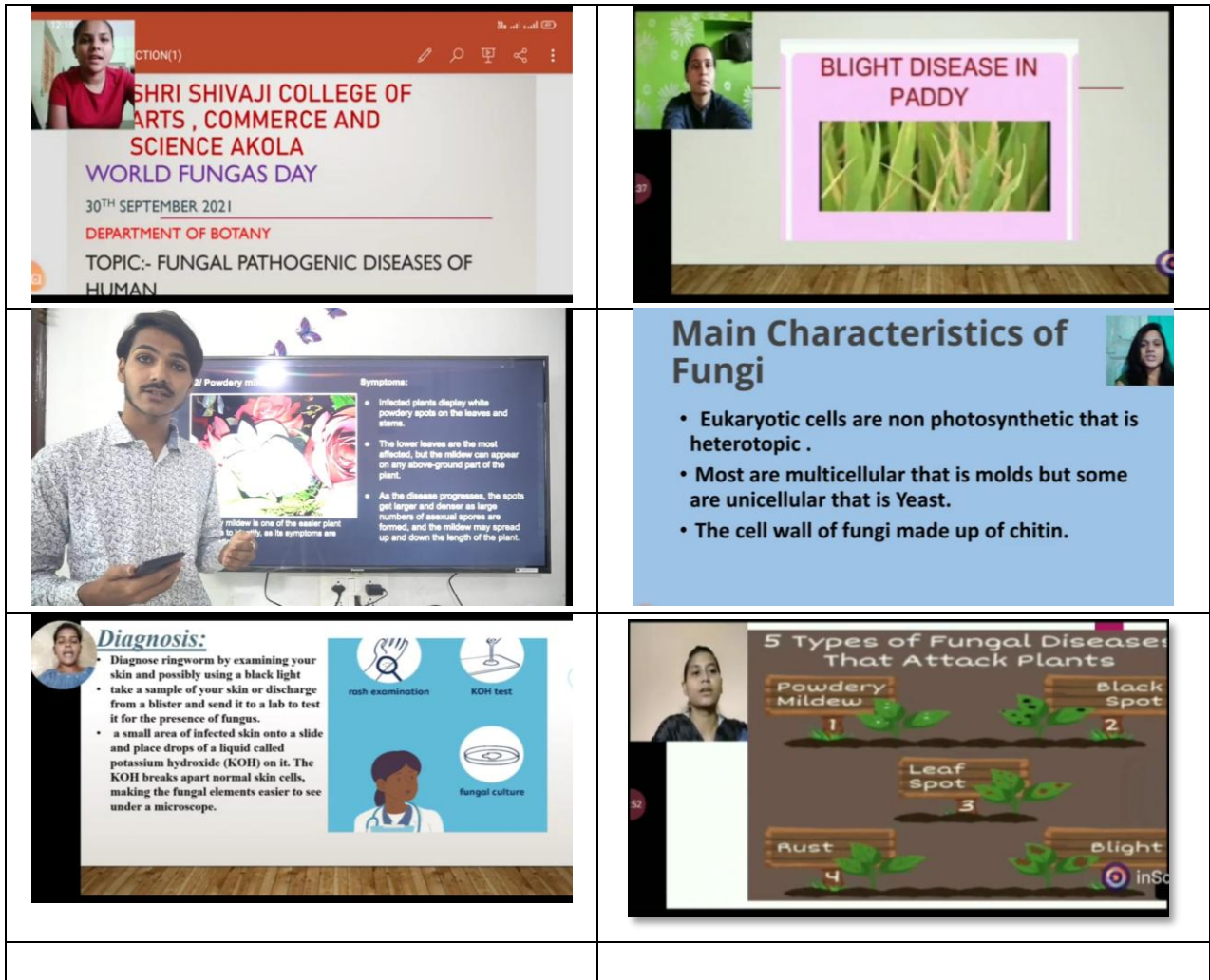
### A Virtual Guest Lecture on the occasion of World Ozone Day



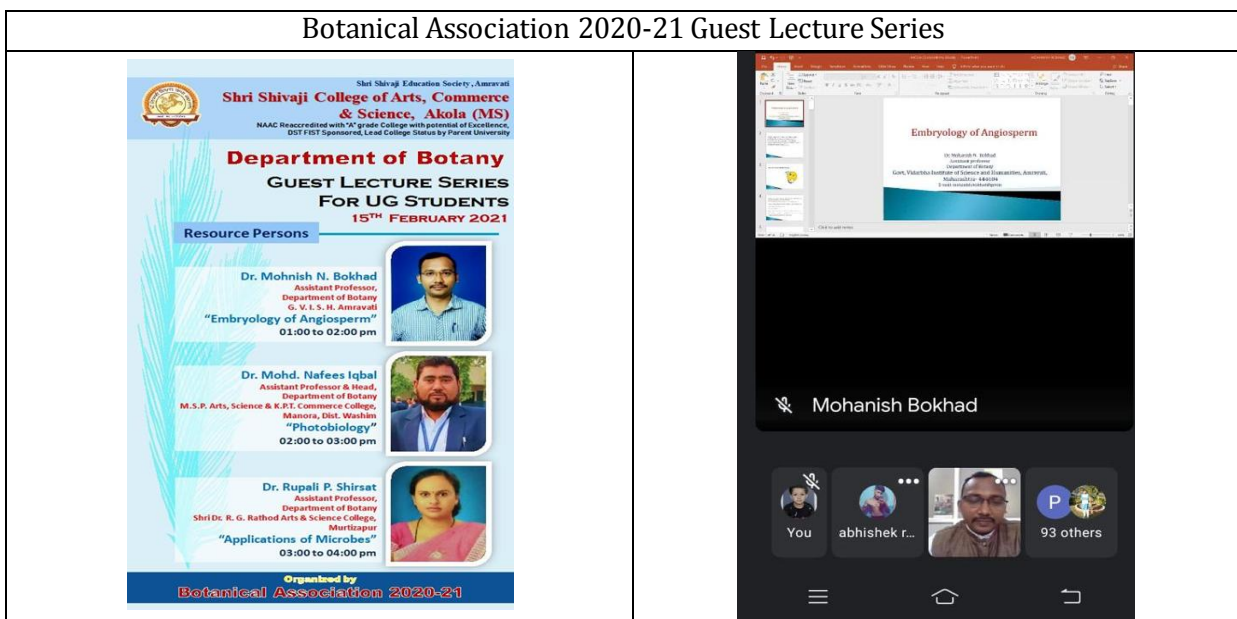
Virtual seminar competition organized by Department in collaboration with Shri Shivaji Science College, Amravati & Mycological Society of India on the occasion of “World Fungus Day” Celebration of Fungal Awareness Week 27<sup>th</sup> Sep to 2<sup>nd</sup> Oct 2021

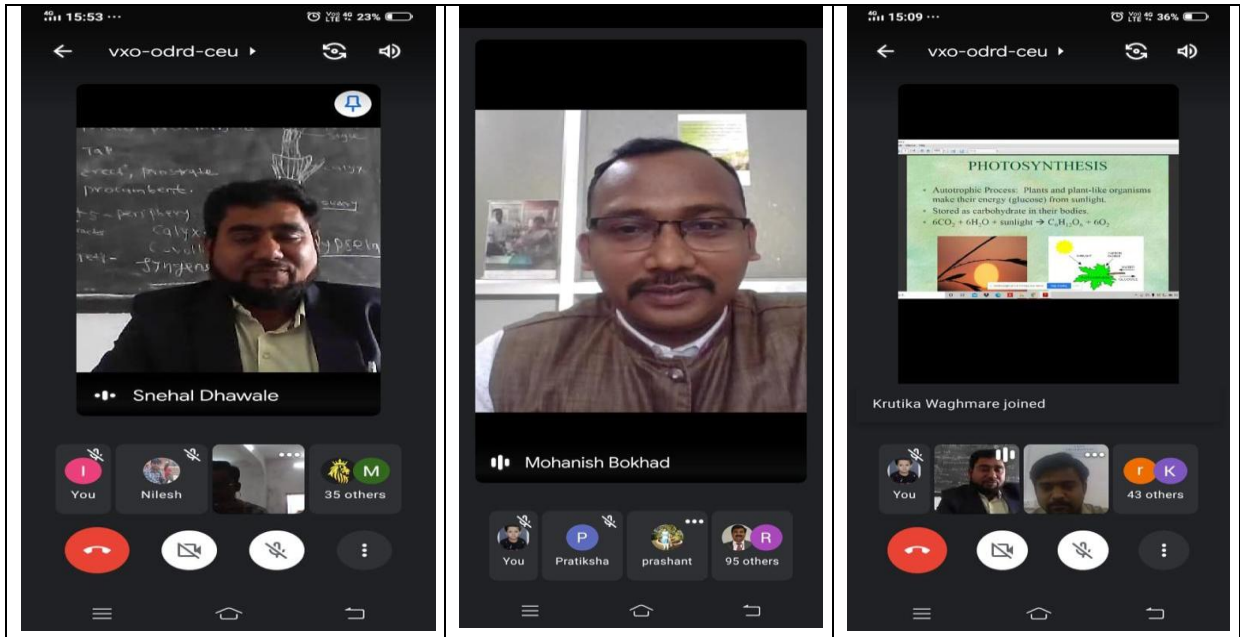
### Virtual seminar competition on the occasion of “World Fungus Day” Celebration of Fungal Awareness Week 27<sup>th</sup> Sep to 2<sup>nd</sup> Oct 2021





Inauguration of Botanical Association, Induction Program, Guest lectures of eminent persona in the field, plantation in college campus, felicitation of meritorious students are among the routine practices of the Department.





## Inauguration of Botanical Association 2021-22

SHRI SHIVAJI EDUCATION SOCIETY, AMRAVATI'S  
**SHRI SHIVAJI COLLEGE OF ARTS, COMMERCE & SCIENCE, AKOLA**  
 NAAC Accredited with 'A' grade, College with potential of Excellence, DST FIST Sponsored, Lead College Status by Parent University

**DEPARTMENT OF BOTANY**  
 Organizing  
**Virtual Guest Lecture for UG & PG Students**  
 On the occasion of Inauguration of  
**Botanical Association 2021-22**

**Resource Person**  
**Dr. P. Y. Bhogaonkar**  
 Professor & Ex Director,  
 Govt. Vaidarbha Institute of Science & Humanities, Amravati  
 First Indian honoured by  
 Janki Ammal National Award (2012)

Topic:-  
**"सृष्टीतील सृजनोत्सव"**

Date:- **30<sup>th</sup> October 2021**  
 Time:- **01:00 PM**  
 Registration Link - <https://forms.gle/mD8r5shajuuByjX8>  
 Google Meet Link - <https://meet.google.com/vpq-josj-boy>

**Organizing Committee**  
**Dr. P. P. Umale**  
 Professor & Head

**Dr. D. K. Koche**  
 Professor

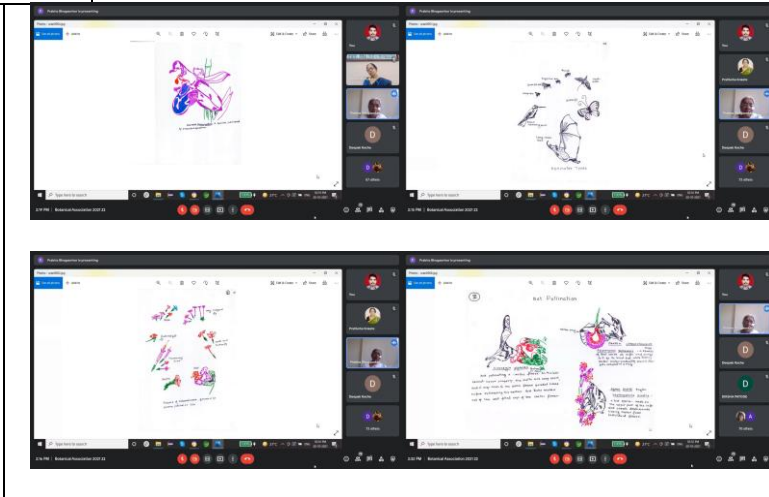
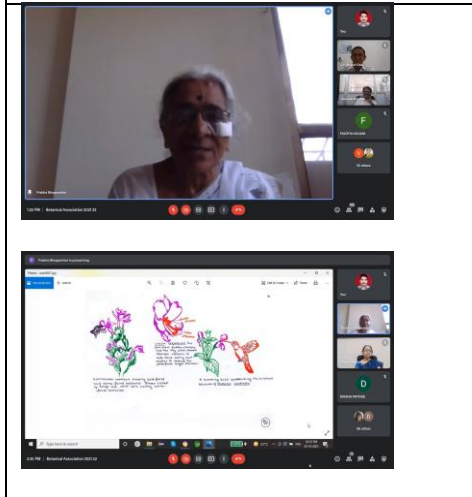
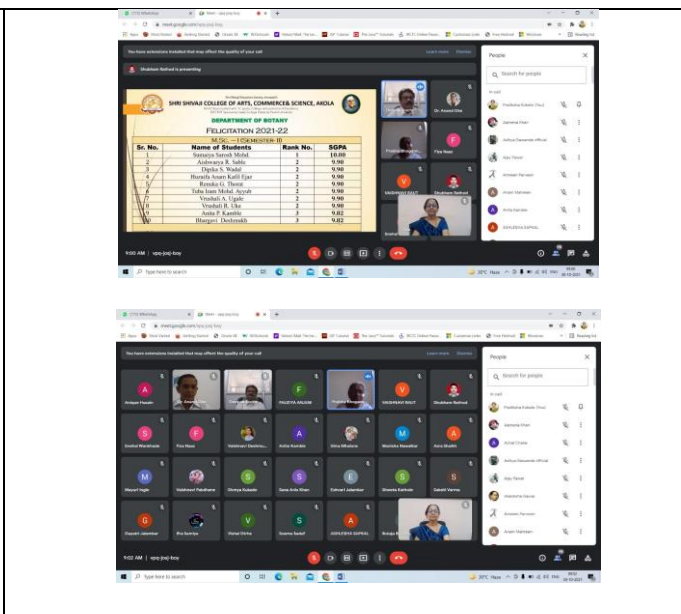
**Dr. V. S. Patil**  
 Professor

**Mr. N. B. Chougkhande**  
 Assistant Professor

**Dr. A. V. Oke**  
 Assistant Professor

**Dr. R. N. Patil**  
 Assistant Professor

**Mr. S. A. Rathod**  
 Assistant Professor



# Glimpses of Boranical Association 2021-22 Guest lecture Series for UG & PG

Shri Shivaji Education Society - Amravati  
**Shri Shivaji College of Arts, Commerce & Science, Akola (MS)**  
 NAAC Reaccredited with "A" grade College with potential for Excellence, DST FIST Sponsored, Lead College Status by Parent University

**DEPARTMENT OF BOTANY**

**GUEST LECTURE SERIES FOR PG STUDENTS**  
 29<sup>th</sup> NOVEMBER 2021

**Resource Persons**

**Dr. Rupesh S. Badere**  
 Associate Professor,  
 Post Graduate Teaching Department of Botany  
 R. T. M. Nagpur University, Nagpur  
**"Regulation of Gene Expression"**  
 01:00 to 02:00 pm

**Dr. Vishal R. Marathe**  
 Assistant Professor,  
 Department of Botany  
 N. E. S. Science College, Nanded (MS)  
**"Plant Classification Systems"**  
 02:00 to 03:00 pm

Registration Link - <https://forms.gle/ZADg6ApUsh8bfsp57>

Organized By  
**Botanical Association 2021 – 22**

29/11/2021

Shri Shivaji Education Society - Amravati  
**Shri Shivaji College of Arts, Commerce & Science, Akola (MS)**  
 NAAC Reaccredited with "A" grade College with potential for Excellence, DST FIST Sponsored, Lead College Status by Parent University

**DEPARTMENT OF BOTANY**

**ALUMNI GUEST LECTURE SERIES FOR UG STUDENTS**  
 30<sup>th</sup> NOVEMBER 2021

**Resource Persons**

**Dr. Suchita W. Dighe**  
 Assistant Professor & Head,  
 Department of Botany  
 Shri Pundalik Maharaj Mahavidyalaya, Nandurbar City,  
 Dist. Buldhana (MS)  
**"Diversity of Plants with respect to Cryptogams"**  
 01:00 to 02:00 pm

**Mr. Shivdas R. Aher**  
 Assistant Professor,  
 Department of Botany  
 M.S.P & K.T. College, Manasa, Dist. Washim (M.S.)  
**"Application of Plant Growth Hormone"**  
 02:00 to 03:00 pm

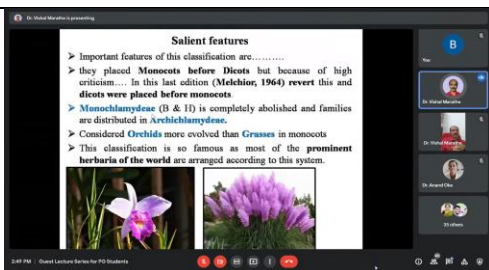
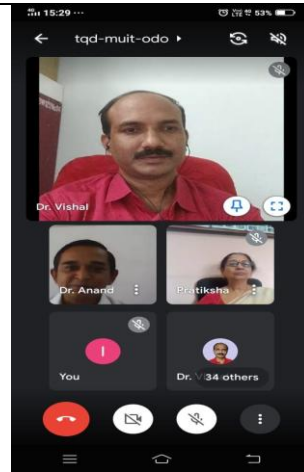
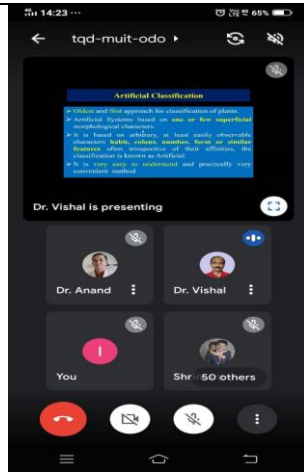
**Dr. Manoj R. Kalkure**  
 Assistant Professor & Head,  
 Department of Botany  
 L. R. Bharti Arts, Comm. & S. S. R. Bharti Sci. College, Arvi, Dist. Yavatmal.  
**"Morpho-Taxonomy of Monocotyledons"**  
 03:00 to 04:00 pm

Registration Link - <https://forms.gle/ZADg6ApUsh8bfsp57>

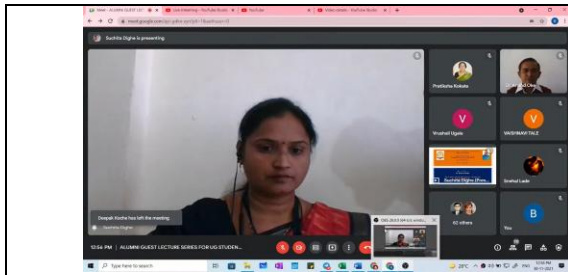
Organized By  
**Botanical Association 2021 – 22**

30/11/2021

29/11/2021



30/11/2021



**Halophytes**  
 These plants grow in saline soil or water.  
 Common Example: Mangrove plants, e.g., Rhizophora.

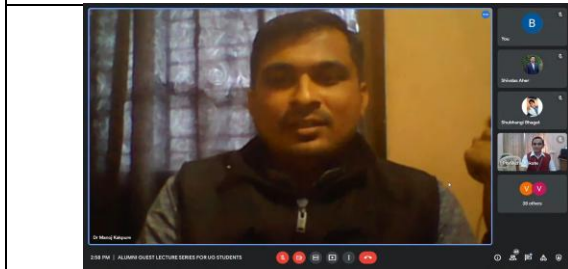
**Mesophytes**  
 Plants that require moderate water for their growth and development are known as mesophytes. Majority of angiosperms belong to this group.

**Xerophytes**  
 The plants which grow in dry conditions or where water is negligible, are known as xerophytes, e.g., cacti, acacia (Figure 6) etc.

**PLANT HORMONES**

- In all plants, there occur in minute quantities of certain substances (plant growth regulators or phytohormones) which regulate growth and differentiation.
- Five major types of growth substances are recognized:
  - auxins and gibberellins** (both concerned with cell enlargement and differentiation);
  - cytokinins** (concerned with cell division);
  - abscisic acid** (with resting states like lateral buds);

**Apical Dominance**



- The monocotyledons include about 60,000 species.
- In agriculture, the majority of the biomass produced comes from monocotyledons.
- Monocots are distinguishable from other angiosperms both in terms of their uniformity and diversity.
- The most important distinction is their growth pattern, lacking a lateral meristem (pinnacels) that allows for continued growth in diameter with height (secondary growth).