

# PUNE DISTRICT EDUCATION ASSOCIATION's Waghire College of Arts Commerce and Science, Saswad, Tal-Purandar, Dist-Pune

## **Distinctiveness of the College**

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# PUNE DISTRICT EDUCATION ASSOCIATION'S Waghire College of Arts Commerce and Science, Saswad, Tal-Purandar, Dist-Pune

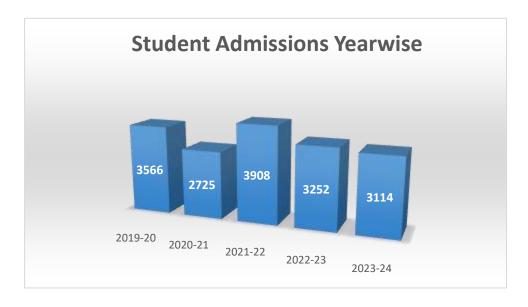
#### **Distinctive Performance in Higher Education Accessibility**

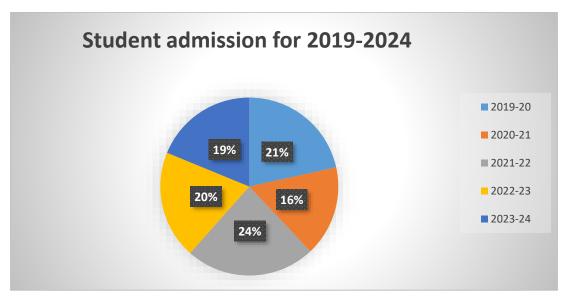
PDEA's Waghire College Saswad, has established itself as a pivotal institution in advancing the educational aspirations of children from farming communities. Located in the rural area of Purandar, known for its agriculture and challenging drought conditions, the college has committed to its mission of making higher education accessible to economically and socially disadvantaged sections of society. Approximately 77% of its student body hails from farming families, illustrating the college's significant impact on this demographic. Through targeted educational programs and initiatives, PDEA College provides these students, often from drought-prone areas, with the skills and knowledge necessary for academic and professional success. This commitment not only uplifts individual students but also contributes to the broader social and economic development of their communities, reinforcing the institution's ethos of "Bahujan Hitaay, Bahujan Sukhaay" — the welfare and happiness of all. We are providing all statistical data and graphical representation in cumulative from year 2019 to 2023 as well yearwise.

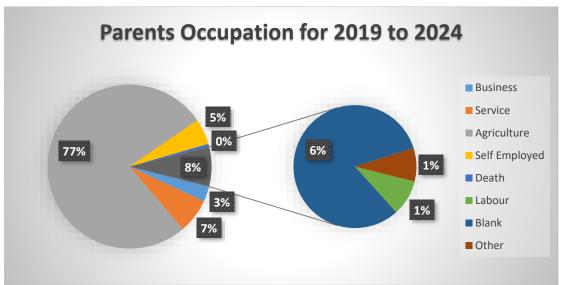
#### A. Focus on the Moto

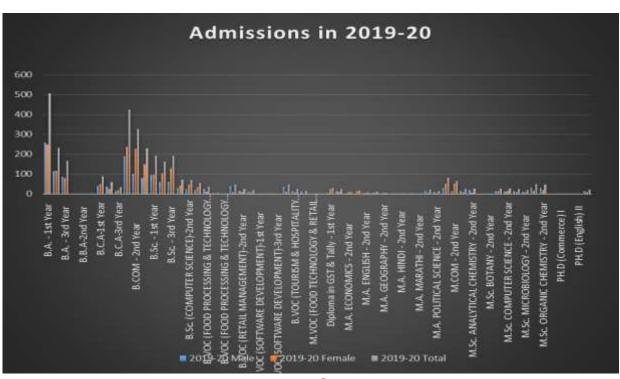
"Bahujan Hitaay, Bahujan Sukhaay" — the welfare and happiness of all

The College strives to impart higher education to economically weaker sections in the tune with its moto.

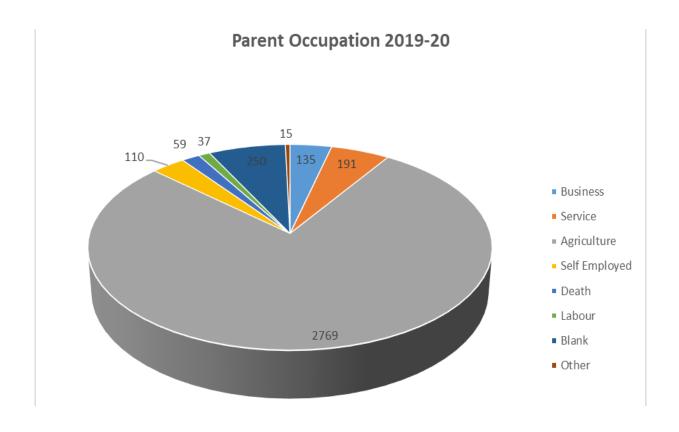


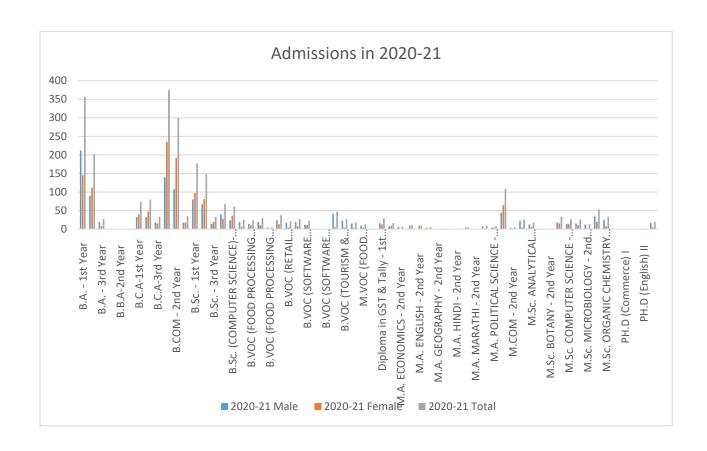




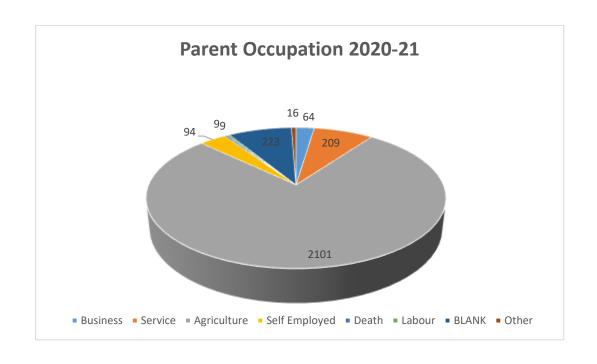


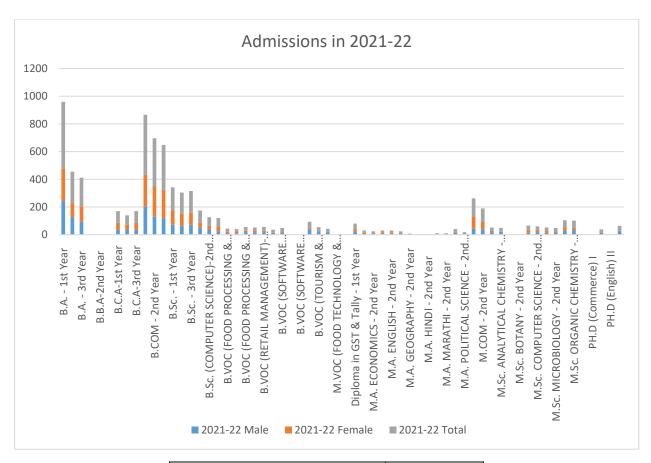
<b>Parents Occupation</b>	2019-20
Business	135
Service	191
Agriculture	2769
Self Employed	110
Death	59
Labour	37
Blank	250
Other	15
Total	3566





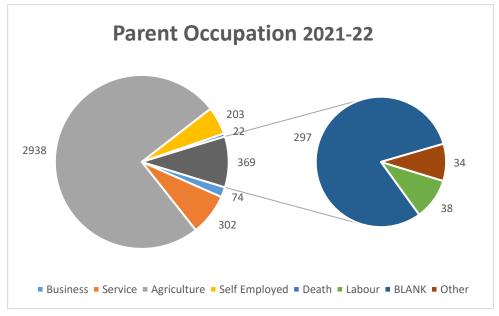
<b>Parents Occupation</b>	2020-21
Business	64
Service	209
Agriculture	2101
Self Employed	94
Death	9
Labour	9
Blank	223
Other	16
Total	2725

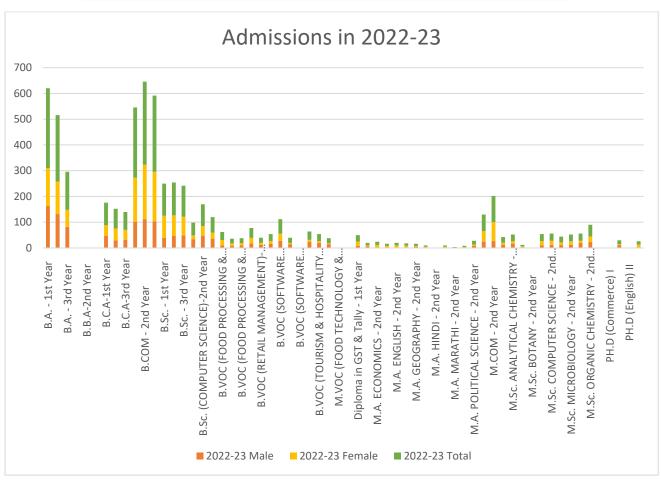




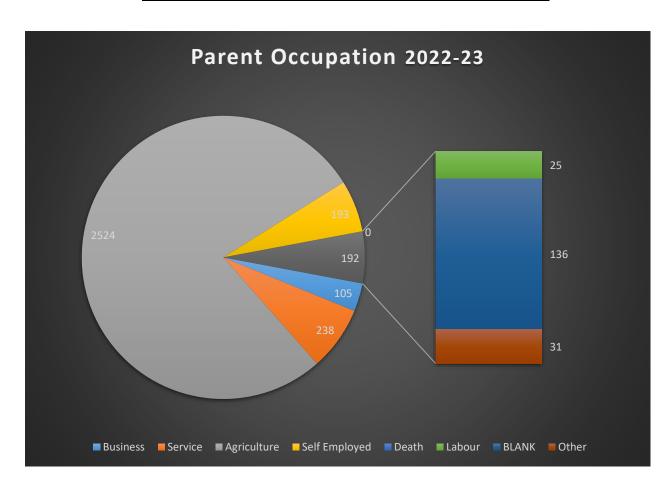
Parent Occupation	2021-22
Business	74
Service	302
Agriculture	2938
Self Employed	203
Death	22

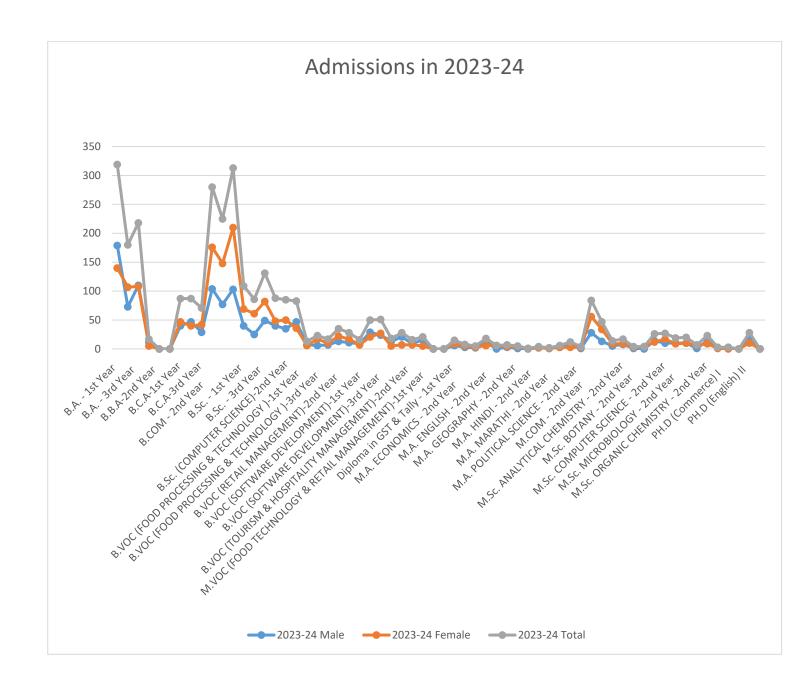
Total	3908
Other	34
BLANK	297
Labour	38



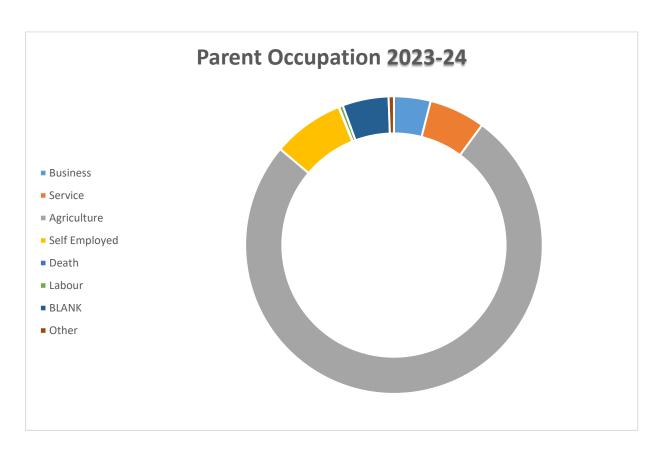


Parent Occupation	2022-23
Business	105
Service	238
Agriculture	2524
Self Employed	193
Death	0
Labour	25
BLANK	136
Other	31
Total	3252





<b>Parent Occupation</b>	2023-24
Business	124
Service	190
Agriculture	2369
Self Employed	242
Death	2
Labour	13
BLANK	156
Other	18



#### **Curricular and Co-curricular Innovations**

#### B. Curricular enrichment trough Skill-Based Programs

## Skill-Based Programs and Faculty and Student Development Programs conducted by College Various Departments.

PDEA's WCS distinctive approach to education extends beyond traditional academic boundaries. It is about nurturing a generation that is not only academically proficient but also deeply aware of and involved in addressing the socio-economic challenges of their communities. The institution's efforts in bringing higher education to the doorstep of the rural masses, coupled with its commitment to environmental sustainability and social responsibility, truly embody its vision of welfare and happiness for all. This unique focus not only enhances the lives of individual students but also enriches the broader communities from which they come, setting a standard for inclusive and impactful education.

#### List of activities

Sr. No	Activities		No. of beneficiaries	Date
1.	Aerobiological technique hands on training	Dr.Akshay Shete Requirements	30	7/01/2022
2.	Skill development training programs and workshops on the horticultural techniques	Dr.B.M.Shinde Requirements	50	15/02/2022

3.	Skill development training programs and workshops on the chromatography	Dr. Vishwadeep Kapare Ms. Pallavi Bhagat	50	8/02/2022
4.	Skill development training programs and workshops on the Ayurvedic formulations	Mrs.Anuja pandit	50	25/02/2022
5.	One Day workshop on E- Herbaria	Dr.Mayur Nandikar	50	8/1/2022
6.	Guest Lecture series-I	Dr. D. M Mahajan Dr. Varsha Shriram	65	17-18/09/2021
7.	Guest Lecture Series-II	Dr.R.B.Bhagat Mr.Prashant Borawake Dr.D.M.Mahajan Dr.Varsha shriram	79	21-22/9/2021
8.	Workshop on herbal cosmetics	Dr.Priyadarshani kadus Dr.Atul kapadia	25	4/10/2021
9.	Bonsai workshop	Ms.Shailaja kapila	30	6/10/2021
10.	Training programme on laboratory safety for non-teaching staff	Dr.Mahesh Borde Mr.Satyam Pawar	50	3/09/2021
11.	Workshop on Instrumentation techniques: Microscopic, Microtomy	Dr.Kishor Rajput Mr.Ajeet M	50	28/12/2021
12.	Workshop on Algae Culture	Dr.Vinayak Lokhande Mr.Iyyapan S	40	15/01/2021
13.	Germplasm Conservation and protection of native/local varities of crop	Mr.Prashant Borawake Mr.Yogesh Magar	50	9/5/2022
14.	Aerobiological technique hands on training	Dr.Sudam Jogdand Mr.Akshay Shete	30	28-29/03/2023
15.	Skill development training programs and workshops on the horticultural techniques	Mr.Anand Darveshi	50	15-16/04/2022
16.	Skill development training programs and workshops on the Plant tissue culture	Dr. Varsha Shriram	50	19/04/2022
17.	Skill development training programs and workshops on the Ayurvedic formulations	Mrs. Anuja Pandit	50	22/04/2022
18.	One Day workshop on Herbarium techniques	Dr. Mayur Nandikar	50	1/05/2022
19.	Guest Lecture series-I	Mrs.Kalpana Sawant Mr.Prashant Borawake	100	24-25/06/2022
20.	Guest Lecture Series-II	Prof.C.P.Hase Mr.Rajkumar Pawar	100	28-29/06/2022
21.	Workshop on herbal cosmetics	Dr.Vijay Gadgil Dr.Asmita Jadhav	25	2/07/2022
22.	Bonsai workshop	Dr.Erach Bharucha	30	6/07/2022

23.	Training programme on Mushroom cultivation	Dr.Suresh Naidu	50	16/07/2022
24.	Organization of Science exhibition, Competitions	Prof.Pradnya Jagtap Dr.R.U.Deshmukh Prize:1st Kadbane Sakshi & Kalange Shreya 2nd Jagtap Bhavana & Balgude Supriya 3rd Jagdale Vaishnavi & M.P.Megha Manu Consolation Prize: Botre Neha & Kolte Tanuja	100	22/07/2022
25.	Bonsai workshop	Dr. Erach Bharucha	30	6/07/2022
26.	Training programme on Mushroom cultivation	Dr.Suresh Naidu	50	16/07/2022
27.	Salad Decoration and Rangoli Competition	Prof.Atishkumar Gavit Prof.Illias	50	16/12/2022
28.	Germplasm Conservation and protection of native/local verities of crop	Mr.Prashant Borawake Mr.Yogesh Magar	45	12/08/2022
29.	Workshop on Instrumentation techniques: Chromatographic,	Prof.Nutan Malpathak Mr.Vishwadeep kapare	50	1-2/08/2022
30.	Molecular Techniques Workshop on Algae Culture	Dr.Manisha Sangale Dr.Hrishikesh Khodade	40	6/08/2022
31.	Medicinal Pants Garden development		35 Non-teaching staff	2022-23
32.	Hands on training on Spectrophotometry	Dr. Ganesh Nigade	T Y B Sc -50	05/07/2021
33.	Hands on training on Flame photometry	Dr. Ganesh Nigade	T Y B Sc- 50	13/07/2021
34.	Workshop on perfume synthesis	Dr. Fazzal Sir	S Y B Sc - 50	10/08/2021
35.	Workshop on sanitizer and hand wash making	Dr. Fazzal Sir	T Y B Sc - 50	22/02/2022
36.	Guest lecture on spectroscopy	Dr. Sangeeta Jagtap	T Y B Sc - 50	16/03/2022
37.	Guest lecture on Coordination Chemistry	Prof. Wandhare D M	T Y B Sc - 50	17/03/2022
38.	Guest lecture on Crystal Structure	Dr. Shrikant Nikam	T Y B Sc - 50	18/03/2022
39.	Guest Lecture on Rearrangement Reactions	Dr. Pawar Hari	T Y B Sc - 50	19/03/2022
40.	Guest Lecture on Volumetric Analysis	Prof. Manoj Tapare	S Y B Sc - 52	22/03/2022
41.	Guest Lecture on Stereochemistry	Prof. S B Dhotre	F Y B Sc - 52	23/03/2022
42.	Guest Lecture on Quantum Chemistry	Prof. S K Nikam	F Y B Sc - 55	24/03/2022
		1		I

43.	Science exhibition for UG students	Prof.Dr. Suresh Waghmode	F Y/ S Y/T Y B Sc -100	18/01/2023
44.	Industrial Visit at Science Park, Pimpri Chinchwad, Pune	Prof. L.K. Nikam Science park Pimpri Chinchwad, Pune	T Y B Sc-50	08/02/2023
	Work shop on use of ICT in	Dr. R N More	Teaching staff	24/02/2023
45.	teaching learning and evaluation for faculty		of Chemistry, Microbiology, Botany, Zoology	
46.	Hands on training workshop on Laboratory safety for nonteaching staff	Mr. Rahul Jagtap	200009,	12/07/2023
47.	Hands on training on preparation of standard solutions	Dr. D R Shinde	F Y/ S Y/T Y B Sc	14/08/2023
48.	Workshop green synthesis on nanoparticles	Dr. Ashok Bankar	F Y/ S Y/T Y B Sc	26/07/2023
49.	Hands on training on Chromatography Techniques	Dr. Borkar D J	S Y B Sc - 50	20/07/2021
50.	Hands on training on water analysis	Prof. Tapare Manoj	T Y B Sc -54	28/07/2021
51.	Guest lecture on Rotational and Vibrational Spectroscopy	Prof. Sandip Labade	T Y B Sc -51	27/08/2021
52.	Guest Lecture on Chemical Thermodynamics	Prof. Sandip Labade	F Y B Sc - 65	15/12/2022
53.	Hands on training on Polarimetric Techniques	Prof. Vijay D Thopate	T Y B Sc-52	10/01/2023
54.	Guest Lecture on Chemical Kinetics	Dr. Latesh K. Nikam	S Y B Sc -55	12/01/2023
55.	Guest lecture on Stereochemistry	Prof. D D Gaikwad	TYBSc	14/01/2023
56.	Medical checkup, blood testing	Akshay Blood bank	30 parents	20/10/2021
57.	Gynecological health check-up	Dr. Sunita Patil	31 ladies staff	31/03/2022
58.	Hands on training, Chromatographic Techniques and Basic Techniques in Molecular Biology	Make Intern and E cell IIT Kharagpur	54 students	3 <sup>rd</sup> and 4 <sup>th</sup> Oct 2022
59.	Gynechologica health check up for girl students	Dr. Sunita Kale	50 students	8 <sup>th</sup> Mar 2023
60.	Hands on training, 'Isolation and enumeration of	Dr. Sangita Ahiwale	54 students	9 <sup>th</sup> Mar 2023
61.	Bacteriophages' Lecture on Basic Entomology	Ms.Nikita Saste	50	09/12/2021
	KadjaiVanrai Survey of	Sunil Kokare and B.S.	50	30/12/2021
62.	Chambli Village International Day of Women	Madbhavikar Dr. Anupama Walwalkar	50	11/02/2022
63.	and Girls in Science	Ms Vaibhavi Sutaone		
64.	Earth Day Celebration	Dr. Mahendra Jagtap	100	22/04/2022

	Lecture on Climate change and its Impact on Biodiversity Sericulture Workshop	Dr. Madhav Bhillave,	100	21/08/2022
65.		Dr. R.D. Chaudhari,		
66.	Lecture Series on Health related Communicable Diseases	Dr. H.S. Karkar Dr. Vinod Sutaone	50	22/08/2022 To 25/08/2022
67.	Workshop on Owl Conservation	Dr. Satish Pande' Shri Rahul Lonkar, Shri Rajkumar Pawar	25	27/08/2022

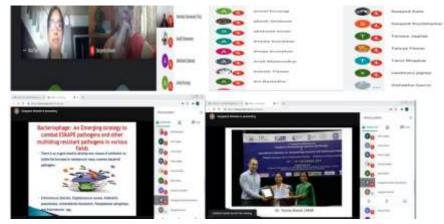
### **Reports of the Activities**

**Bio fertilizer production:** Since there was pandemic started during this year, we had to organize online lecture series for students. Three lecture series were arranged for the students. In the first series three lectures were organized, in the first lecture for T. Y. B. Sc. Microbiology students on 16th October 2020-11-30am to understand the concepts of bioinoculum production and their applications. The honourable guest, Mr. Ravi Gokhale, Director Production, Tricon Biochem Production, Pune shared his knowledge and experiences in the field of bio fertilizer production.

The second lecture was planned for F. Y. B. Sc. Microbiology students on 29th October 2020 at 1.45pm to 3.15 pm. The lecture was organised to understand the concepts of sterilization and disinfection and use of sanitzers. Mr. Prashant Jambhale, being Quality control microbiologist, shared his knowledge and experiences in this field.

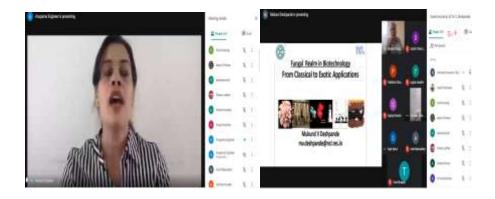
On 3 rd November 2020, third lecture was organized on "Bacteriophage Technology" for T. Y. B. Sc. Microbiology students at 1.00pm. The lecture was organized to make students understand the concepts of bacteriophage, its isolation, phage therapy and its application in this modern era. We had an immense presence of an eminent personality Dr. Sangita Ahiwale, HOD, Department of Microbiology, Mahatma Phule College, Pimpri, Pune as a resourse person to share her knowledge

and expertise in the said topic.





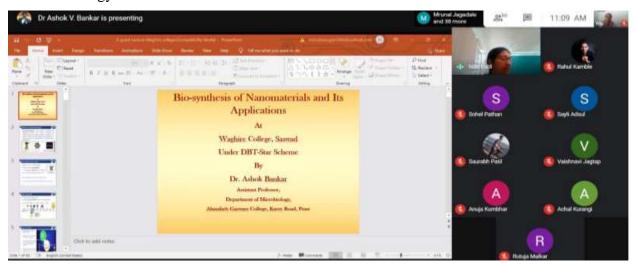
The second lecture series started in the month Jan' 2021. On 21st January 2021, a guest lecture was organized on "Antibiotic- Boon or Bane" for T.Y.B. Sc. Microbiology students at 11.00am. The lecture was organized to make students familiar with the concept of Antibiotics, its history and its application throughout the world. We invited a very dashing, an eminent scientist & multitasking personality Dr. Anupama Engineer, COO and Cofounder, Weinnovate biosolutions Pvt. Ltd, Pune as a resourse person to share her knowledge, research work and experience in the said topic. In the second lecture for T. Y. B. Sc. Microbiology students on 22<sup>nd</sup> Jan 2021 at 11.00 am to 12.30 pm. The lecture was organised to understand the Role of Fungi in Biotechnology. Dr. M. V. Deshpande, being Microbiologist and Researcher, shared his knowledge and experiences in this field.



On 23<sup>rd</sup> January 2021, a guest lecture was organized on "Fermentation Technology" for S.Y.B. Sc. Microbiology students. The lecture was organized to make students understand the concepts of Fermentation, its types, techniques and applications. As Fermentation technology is the part of S.Y.B.Sc curriculum, we had an eminent presence of Mr. Vandan Ghule, from VSI, Manjari, Pune as a resourse person to share his knowledge and expertise in the said topic.

In the third lecture series, on 8<sup>th</sup> March 2021, a guest lecture was organized on "Career Opportunities after B.Sc" & "Strategies to Crack competitive Examinations after B.Sc" on 8<sup>th</sup> and 9<sup>th</sup> March 2021 respectively for T.Y.B. Sc and S.Y.B. Sc students. The lecture were delivered by one of our pride, an

alumni of college Mr. Vishal Bhujbal. He guided students by providing the following list of M.Sc. entrance examinations with their probable dates of commencement and closing of examination forms. Another lecture for T. Y. B. Sc. Microbiology students was scheduled on 10th March 2021 at 11-00 am under DBT Star Scheme. The honourable guest, Dr. Ashok Bankar, Assistant Professor, MES Abasaheb Garware College, Pune shared his knowledge and research experiences in the field of Nanotechnology.



A virtual visit was arranged to the Blood bank for T.Y.B.Sc. students on 30th January 2021 at 11.00 am. to learn blood bank techniques of collection, separation and storage of blood and blood components and other blood bank practices.

#### Academic year 2021-22:

On 30<sup>th</sup> Oct 2021, a guest lecture was organized on "recombinant DNA Technology" for T. Y. B. Sc. microbiology students. The lecture was organized to make students understand the concepts of rDNA technology and its application in Fermentation technology to produce Insulin. We had an immense presence of an eminent personality Dr. Neelu Nawani, Professor and Incharge of Microbial Diversity Research Centre, Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Dr. D. Y. Patil Vidyapeeth, Pune as a resource person to share her knowledge and expertise in the said topic.



Under DBT Star College Scheme, the department of Microbiology had organized two days training program for T.Y.B.Sc. students. It was organized in collaboration with MakelIntern and E-Cell IT

Kharagpur. Total of sixty two Ty.B.sc. students participated in the training session. The idea behind this training program was that, students of T.Y.B.Sc. class in their theory courses are learning about different types of chromatographic and molecular biology techniques and if they could get hands on experience of the same it would be easier to understand the concepts. Also after these training program 4-5 students were identified by the mentors, who could participate in the final championship to be held at IIT Kharagpur campus.



Inauguration function of Training program on "chromatographic Techniques and Basic Techniques in Molecular Biology" conducted on 14<sup>th</sup> and 15<sup>th</sup> March 2022

Another training session was arranged for T.Y.B.Sc. students on 27<sup>th</sup> and 28<sup>th</sup> March 2022 for 'Enrichment, Isolation and enumeration of Bacteriophages'. The enrichment and isolation of bacteriophages is a very tricky procedure, so to understand step by step process, hands on training by Dr. Sangita Ahiwale was arranged.

#### Academic year 2022-2023:

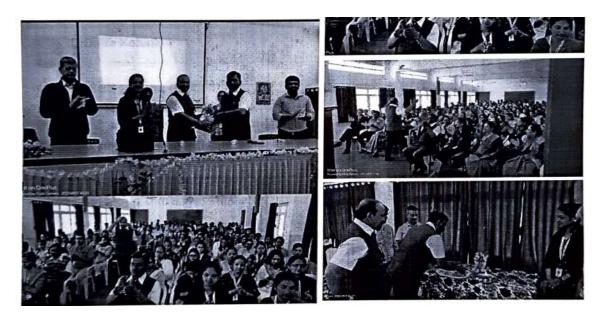
This year the department of Microbiology signed two MoUs, first with KanBiosys Research & Education Foundation [KREF] and another with SanaRica foods, Jejuri.

Activities conducted under this first Mou were, lecture on Concept and use of Bioinoculants, Use of bioinoculants in fields and use of Foliar micronutrient spray.

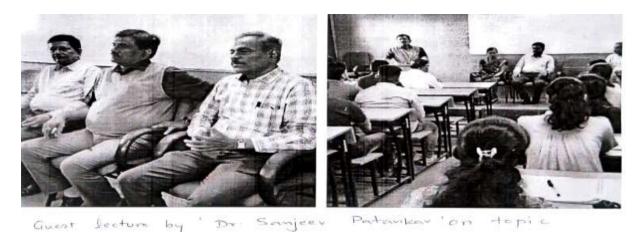
In the second MoU, activities conducted were 1. Collection of food samples of different products manufactured by SRF as and when agreed mutually. 2. To understand the processes and methodology required to analyse the samples as per FSSAl and FSSC 22000 standards. 3. To carry out the laboratory testing of food products and to maintain batch wise record of the same to be shared with SRF from time to time.

One day Workshop on 'Mind Power and Stress Management' by Dr. Datta Kohinkar was organized for teachers, administration staff and students on Tuesday, 17th January 2023. Guest speaker, Dr.

Datta Kohinkar is a mind power trainer and an author. The audience could experience power of words, positive affirmations and got the keys to relieve stress in day to day life.



Microbiology department had organized a guest lecture on "Future in Life Sciences" for T. Y. B. Sc. students, on 2<sup>nd</sup> Feb 2023. The lecture was organized to make students aware of the opportunities available in Life Sciences. As this year is turning point in their life and they should know different prospects ain the field they are studying. We had an immense presence of an eminent personality **Dr. Sanjeev Patankar,** National Coordinator, Microbiologist Society of India, as a resource person to share his knowledge and expertise in the said topic.



A lecture series on 'Scientific Writing and Communications: Papers, Proposals and Presentations' for science teachers, TYBSc microbiology students and all science PG students was organized on 7<sup>th</sup> February 2023. Dr. Shital Shevate started her lecture with the basics of scientific writing style and composition. She tried to make the students aware of all the possible problems and errors, one would face during his or her research work and in a very simple way, she told them how to overcome these difficulties. She explained the application of these principles for scientific writing while preparing

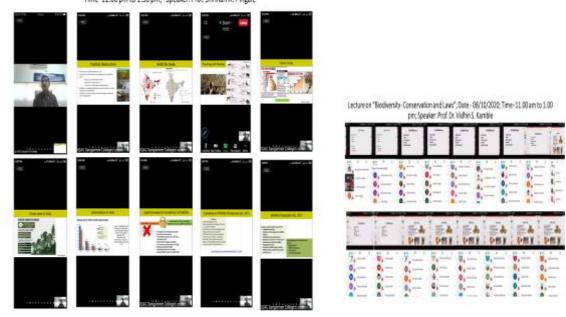
research papers, review articles and grant proposals. Students need to know the above said to successfully promote their research and career.



The Department of Zoology received a grant of 10 lakhs under the DBT-STAR College scheme during August 2020. Hence through this financial help, the department purchased various new equipments and books for enhancing the department. The department organised two Online 3- days Lecture series, a quiz and one online workshop on Vermicomposting during this academic year under the DBT STAR College Scheme.

The first online 3 days lecture series was organized under the DBT- STAR College Scheme from 6th October to 8th October 2020, to celebrate the Wildlife Week and to create awareness amongst students regarding the Wildlife. The three guest speakers invited for the First lecture series on the three respective days were 1. Prof. Dr. Sudhakar Murlidhar Kurhade, New Arts, Commerce and Science College, Shevgaon, Dist. Ahmednagar (Topic- "Avian diversity"; 64 participants); 2. Prof. Shrihari Ashok Pingale, Sangamner Mahanagarpallika Arts, D.J. Malpani Commerce and B.N. Sarda Science college, Sangamner, Dist. Ahmednagar (Topic- "Wildlife Protection and Acts"; 80 participants) and 3. Prof. Dr. Vidhin Sunder Kamble, Sangola college, Sangola, Dist. Solapur (Topic - "Biodiversity- Conservation and Laws"; 86 participants) respectively. A Quiz competition was also organized from 6th October- 8th October, 2020 for the Students of F.Y.B. Sc and S.Y.B. Sc Zoology students, wherein about 213 students from other colleges and Waghire college participated in it.

Lecture on "Wildlife Protection and Acts"; Date - 07/10/2020; Time- 12.00 pm to 1.30 pm; Speaker: Prof. Shrihari A. Pingale



The second online 3 days guest lecture series was organized again under the DBT STAR College Scheme from 1<sup>st</sup> February to 3<sup>rd</sup> February 2021. Three eminent and well-known personalities were invited for the lecture series as guest speakers on the three respective days 1. Dr. Baban Shravan Ingole, Visiting Scientist, National Centre for Polar and Ocean Research, Vasco, Goa and Former Chief Scientist and Head of Biology Division, National Institute of Oceanography, Dona Paula, Goa (Topic-"Marine Biodiversity"; 88 participants) 2. Prof. Dr. Abhay Khandagale, Principal and Head of Zoology Department of Prof. Ramakrishna More College, Akurdi, Pune (Topic- "The role of Zoology in Medical sciences";100 participants) and 3. Shri Amit Pawashe, Renowned Ornithologist of Purandar tehsil, Pune (*Topic-"Birds in Purandar* tehsil"; 86 participants) respectively.





An **online workshop titled "Online Workshop on Vermicomposting**" was organized on 5th February, 2021 under the DBT- STAR College scheme by the Department for all the F.Y and S.Y.B.Sc Zoology students. The guest speaker invited for conducting this workshop was Shri. Prashant Borawake, An Environmentalist and Coordinator of Paani Panchayat, an NGO ran under

the guidance of Gram Gaurav Pratisthan, Khalad. Through his live video and also presentation, he explained the importance and the need for Vermicomposting. The workshop was organized with an aim of educating and providing basic knowledge to the F.Y.B.Sc and S.Y.B.Sc Zoology students regarding vermicomposting, vermiculture and use of vermicompost. Due to excessive use of inorganic fertilisers and pesticides, the field soil loses its fertility as a consequence of death of soil organisms. It also causes production of poor- quality fruits and grains. Soil pollution is another environmental issue which arises due to extensive usage of inorganic fertilisers. Hence, Preventive and curative measures require to be taken for increasing the soil fertility. One such measure which is clean, sustainable and zero waste is vermicomposting. Since, majority of the students have agricultural background, by learning the basics of vermicomposting through the online workshop, they can in an own manner carry it out in their fields.



#### **Academic year- 2021-2022:**

During the year 2021-2022, the department organised many activities like one day workshop on Health Awareness, Guidance and Check-up for College teaching and non-teaching staff; one day workshop on Apiculture and related practicals; one day Hands on Training on honeybee handling; one day field visit to Apiculture and Fish farm unit of Krishi Vigyan Kendra, Baramati and Virtual Animal Museum for smart classroom for Zoology U.G. students.

In the one-day workshop on Health awareness, Guidance and Check-up conducted on 1<sup>st</sup> December, 2021, various health parameters like Haemoglobin, Sugar level, Blood pressure, Body Mass Index, Bone Marrow Density and ECG were checked of 116 staff members from both teaching and Non-teaching faculty. Those staff members who were found to have high blood pressure, increased blood sugar, low bone density and irregular ECG were asked to consult the doctors for further treatment.



One day workshop on Apiculture and related practicals on it was conducted on 22<sup>nd</sup> January 2022 wherein Shri Prashant Gawade and Shri. Sachin Kshirsagar from the Krishi Vigyan Kendra, Malegaon Khurd, Baramati explained the students the basics of Apiculture, history of apiculture, the role played by the honeybees in ecology and economy, the equipments used in apiculture and also how to handle the honeybees, and the extraction processes of honey, beeswax, propolis, pollens, royal jelly and bee venom. 65 students benefitted from this workshop.







One day Hands on Training on Honey bee handling for the teaching and Non-teaching staff of Zoology department, students and near-by farmers was also organized on 2<sup>nd</sup> February, 2022. 73 individuals comprising of 11 farmers and 62 students and four faculty members received hands on training on handling of bees, hiving of bees, setting up of apiary, flora and vegetation around the apiary as food source for the bees and the benefits derived from an apiary after setting it up. Also, the 9 bee boxes purchased by the Zoology department under the DBT Star College scheme in the academic year 2020-2021 were installed in the college botanical garden to establish an Apiary.



The Department of Zoology had organized hands on training on Honey extraction from the bee boxes set up in the College Botanical Garden on Sunday, 13th March, 2022 for the Zoology Department staff. This workshop was conducted by Mr. Alpesh Wagh and Mr. Sachin Kshirsagar

from Krishi Vidhnyan Kendra, Malegaon Khurd, Baramati. Mr. Alpesh Wagh explained the exact process of how honey extraction while Mr. Sachin Kshirsagar carried out the practical process of honey extraction. Dr. B.U. Mane, Dr. B.S. Madbhavikar, Prof. S.A. Kokare and Mrs. R.S. Nevase received hands on training on Honey extraction along with 11 interested students.







The Virtual Animal Museum, one of its kinds in the whole of PDEA colleges was also prepared by the Zoology department by filming all the animal specimens and slides kept in the Zoology department by utilising the DBT-STAR College Scheme grant. The intention behind this activity was to make available the specimens virtually to the students in-case of damage or breakage of specimen bottles or specimen etc. Also, as per the Ministry of Environment, Govt. of India and Wildlife authorities, collection, killing and preservation of animals is banned as per the WPA, 1972, hence preserving the museum specimens virtually was another reason for carrying out the filming.

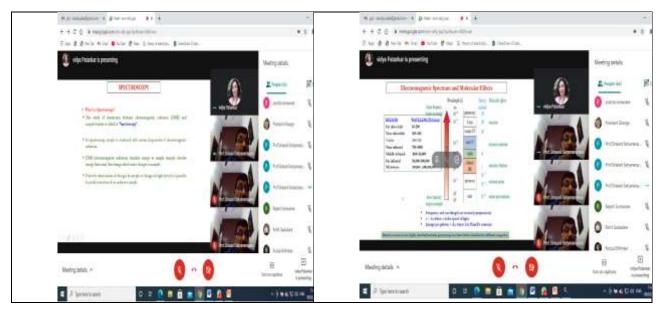
#### **Workshop on Laboratory Safety**

A lecture on "Laboratory Safety" featured Mr. Hemant Kasat from Synlet Pvt. Ltd., Pune, providing valuable insights to 93 UG students. Dr. M.M. Jagtap introduced and anchored the session, with Dr. Sandip Rathod delivering the vote of thanks. The event aimed to educate students on safe laboratory practices and handling toxic chemicals.

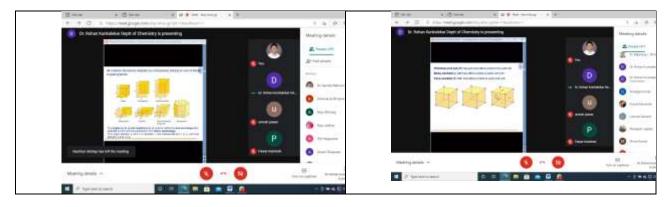


#### **Guest Lectures**

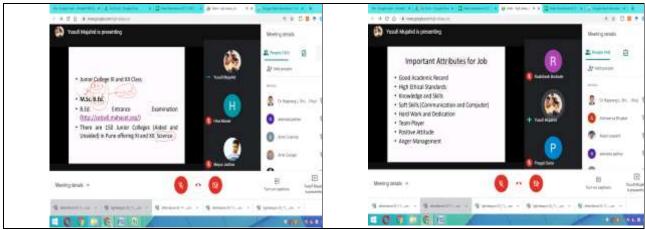
Under the DBT Star College Scheme, the Chemistry department hosted a guest lecture on Gravimetric analysis for T. Y. B.Sc. students, with Professor Dr. K. M. Gadhave from Ramkrishna More College Akurdi, Pune, enlightening 21 students on gravimetric methods, precipitation, coprecipitation, common ion effect, and solubility product. The department also organized an online guest lecture series for UG students, featuring Dr. Satyanarayana Sirsani's session on General Introduction to spectroscopy-UV Visible spectroscopy, attended by 50 T.Y.B.Sc. Chemistry students.



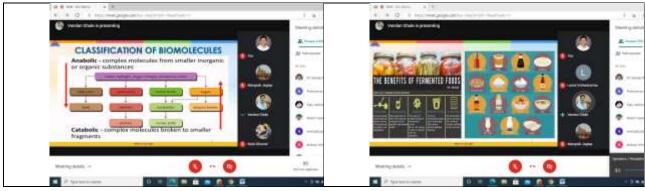
The second guest lecture on Solid State Chemistry was delivered by Dr. Rohan Kunkalekar, Assistant Professor, Department of Chemistry, Goa University. For this lecture 64 T Y B Sc students were present. The students learns difference between crystalline and amorphous solid, properties of crystal, crystal system, Crystal Lattice and Unit cell etc.



Dr. Yusufi Mujahid from Abeda Inamdar Senior College delivered the third online guest lecture on Career Opportunities in Chemical Sciences for 100 UG students. The lecture covered various career paths in chemical sciences, including opportunities in chemical and pharmaceutical industries, research, education, and different M.Sc. specializations. Students were motivated to pursue further studies like NET, SET, Ph.D., and M.Phil. after completing their Master's degree, actively engaging in discussions with the resource person.



Dr. Vandan Ghule, Technical Officer at VSI Pune, delivered the fourth lecture on "Fermentation Technology" for T Y B Sc students. The comprehensive session covered various aspects such as chemical changes in processes, applications of chemistry in biofuels, bioplastics synthesis, green chemistry, fermentation technology, benefits of fermented foods, beverage production, wine making technology, and the role of chemistry and microbiology. The lecture also motivated students and provided insights into career opportunities in Fermentation technology and alcohol technology.



The department of Chemistry also organized guest lecture for T Y B Sc Students on Career opportunities in pharmaceutical Sciences. For this lecture Mr. Praveen Kumar, Head, quality assurance, Surge Pharmaceuticals Pvt ltd. Jejuri MIDC, Pune was invited as a resource person. In this lecture students are guided for job opportunities available in various fields of pharmaceutical industries. In addition to that students were also guided for the how to apply for job in pharmaceuticals industries. From this lecture students also benefited to know how to prepare for interview, what are the requirements industry needs for job. Students are also motivated for how to search for jobs and how to apply what type of skills are required were also discussed in details.



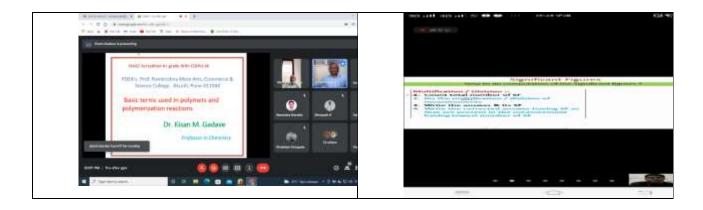
#### Online workshop on UV-Visible spectroscopy

The department of chemistry also organized one day online workshop on UV-Visible Spectroscopy for S Y and T Y B Sc Students on 10/03/2021. For this workshop Prof. Ganesh Nigade, Assistant Professor, SGRS College of pharmacy is invited as Resurce Person. The Workshop is conducted in two session I (online Theory) and Session –II (Instrumentaion). From this workshop students learns Basic principle of UV spectroscopy, Calibration of Instruments, Preparation of sample, Spectra recording, Spectral interpretation, determination lamda max etc. For this workshop 100 students were present.

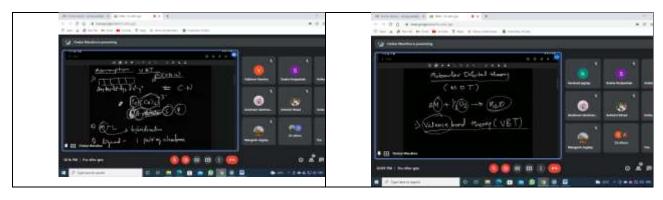
The First online guest lecture was delivered by Prof. Manojkumar Tapre, Assistant Professor, Amrutheswar Arts, Commerce and Science, Vinzer Velha, Pune on *Significant Figure and Computation* on 2<sup>nd</sup> December 2021 at 12:00 pm to 01:00 pm. In this lecture student learns General introduction to significant figures, what is significant figure, importance of significant figures, students understands and solve different examples based on significant figure. Students also learn about computations, Rules of computations through suitable examples.



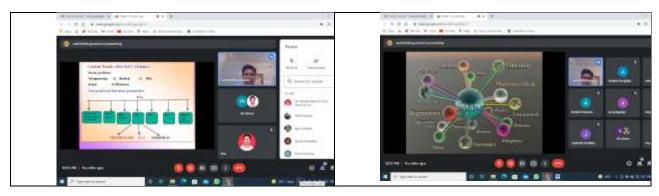
The second lecture was delivered by Dr. K.M. Gadhave Professor, Ramakrishna More College, Akurdi, Pune on *Basic Terms used in polymerization reactions* 3<sup>rd</sup> December-2021 at 12:00 pm to 01:00 pm. The lecture is started with general introduction and definitions of polymer, Types Classifications of polymer, Methods of synthesis of polymers and general applications of polymers etc. For this lecture 31 students of T Y B Sc presents.



The Third lecture was delivered by Prof. Omkar Wandhre, Assistant Professor Department of Chemistry, Amrutheswar college of Arts, Commerce and Science, Vinzer, pune on "*Molecular Orbital theory of Co-ordination Complexes*" on the 4<sup>th</sup> December 2021 at 12: 00 pm to 1:00 pm. In this lecture introduction to co-ordination complexes discussed, briefly Werners co-ordination theory was first discussed, then next Valance Bond theory of Co-ordination complexes are discussed with suitable examples in addition to that, the lecture also focused on the limitation of Valence Bond Theory and how MOT theory developed is also discussed.

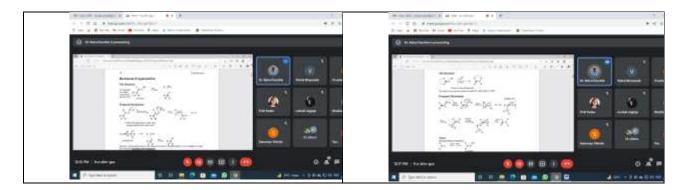


The Fourth online guest lecture was delivered by Dr. Gurme V M, Assistant Professor Department of Chemistry, Shri Shivaji College Barshi, Osmanabad on "*Career Opportunities in the Chemical Sciences*" on the 6<sup>th</sup> December 2021 at 12: 00 pm to 1:00 pm. In this lecture various career opportunities available in the field of chemical science were discussed after B.Sc. and M.Sc completed students discussed.



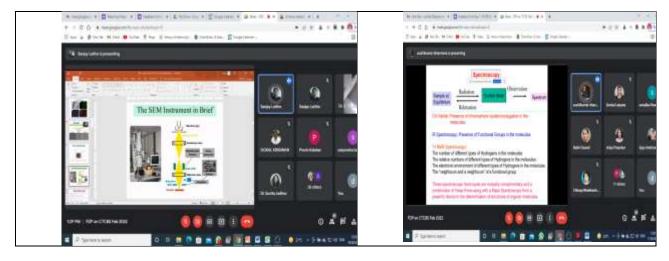
The Fifth online guest lecture was delivered by Dr. Rahul Kamble, Assistant Professor Department of Chemistry, Amruteshawr College, Vinzer, Pune, on "*Rearrangement Reactions*" on the 7<sup>th</sup> December 2021 at 12: 00 pm to 1:00 pm. In this lecture, various rearrangement reactions was discussed. In this lecture Beckmann rearrangement, Beayer

Velliger reactions, Ferovaski Rearrangement reactions, Pinacol Rearrangement reaction was discussed with various examples and their mechanisms also discuseed.



#### **Faculty Development Programme**

The Chemistry department organized a one-day online workshop on UV-Visible Spectroscopy for S Y and T Y B Sc Students, covering basic principles and instrumentation with Prof. Ganesh Nigade. A series of online guest lectures featured topics such as Significant Figures by Prof. Manojkumar Tapre, Polymerization Reactions by Dr. K.M. Gadhave, Molecular Orbital Theory by Prof. Omkar Wandhre, Career Opportunities in Chemical Sciences by Dr. Gurme V M, and Rearrangement Reactions by Dr. Rahul Kamble. Additionally, a 7-day online Faculty Development Programme discussed characterization techniques.



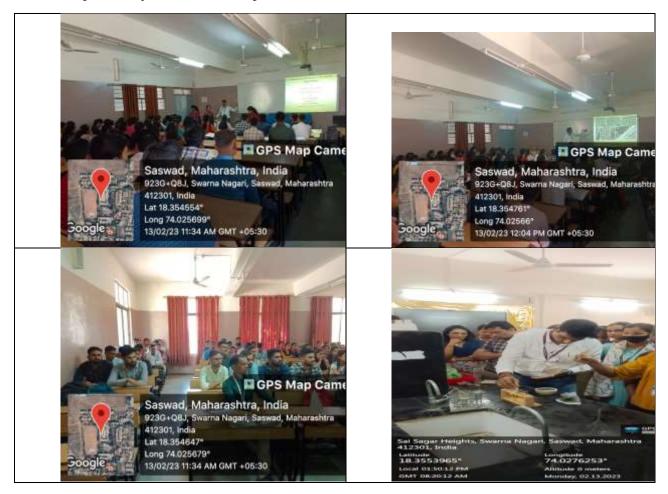
#### **Workshop on Soap and Detergent Making**

a two-day workshop on Soap and Detergent Making, led by Dr. Shaikh Faazil and, explored job opportunities in pharmaceutical industries. The Department of Chemistry, was organized two day workshop on "Soap and Detergent making under DBT STAR scheme of the college during the academic year 2021-2022 on 28/03/2022 and 29/03/2022 at 10:00 am onwards.



#### Hands on training Workshop on Nanoparticle Synthesis

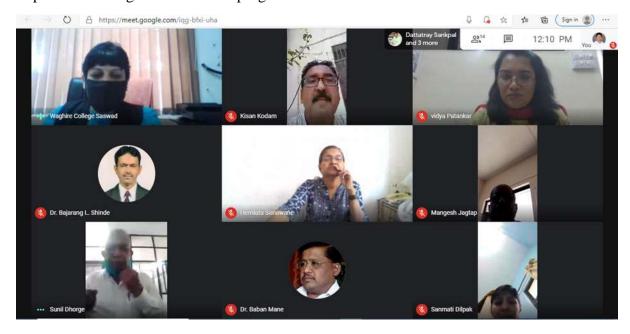
Furthermore, a hands-on training workshop on Nanoparticle Synthesis was organized with Dr. Ashok Bankar, where students from chemistry, microbiology, and botany actively participated in theoretical sessions and practical synthesis exercises. A total of 94 students attended the nanoparticle synthesis workshop.



#### Implementation of DBT STAR activities of the college (29-09-2020)

This workshop was conducted to get insight of how to implement programs under DBT STAR scheme. During this workshop our hounorable guest speaker Dr. Kodam sir, who is professor in

Biochemistry, Department of Chemistry, Savitribai Phule University has given nice guidence for implemention of grants under this program.



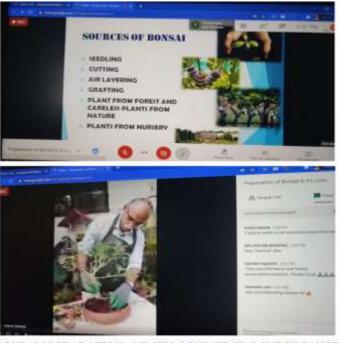
#### Online guest lecture series in Botany (06-11-2020 -07-11-2020)

This online guest lecture series in Botany covered specialized topics, featuring speakers such as Prin. Dr. Shankar Laware from Mula Education Society, who motivated students to pursue ideas and dreams, encouraging innovative thinking. Dr. Ashok Tuwar discussed marine fungi biodiversity and research opportunities. Dr. K. S. Rajput highlighted the importance of plant anatomy in taxonomy and research, along with advanced techniques. Dr. Vikram Rawal from Gujarat Central University guided students on career opportunities in life sciences and Botany. The series, attended by a hundred participants, received positive feedback online.



#### Online workshop on Preparation of Bonsai & it's commercial values (14-12-2020)

This workshop is divided into first session theory of bonsai where he explained about what is mean by bonsai? From where its is originated? Instruments, requirements and types of bonsai. In second session he covered practical online demonstration how to prepare bonsai and how to do repoting etc. It was very informative session around 273 students and teachers were participated from various institutes as well as our institution.



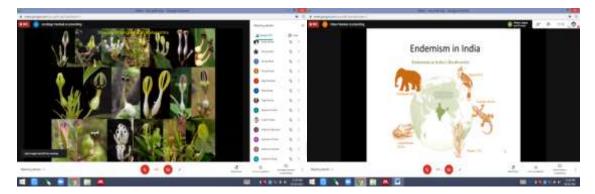
BONSAI PREPARATION AND IT'S COMMERCIAL IMPORTANCE (14th December 2020, at 02:00 PM)

Feedback link: https://forms.gle/mzCgKWcxkrpAmLqk6
You tube link of the event: https://youtu.be/HnOJs xZ8pM

# Online guest lecture series in Botany (31st January, 1 st and 2nd February 2021, at 11:30 AM Onwards)

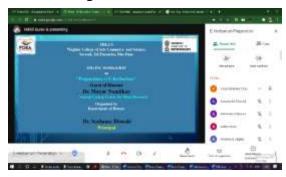
The first lecture by Dr. Sharmili Jagtap covered Microbial Techniques and the Industrial Importance of Microbial Enzymes. Dr. Sharad Kamabale discussed the Floral Diversity of the Northern Western Ghats, while Dr. B. C. Nagaraja, an Associate Professor at Bangalore University, provided valuable insights into Hotspot Biodiversity, Environment, and Climate Change. Mr. Yogesh Mahajan, Technical Officer at the National Chemical Laboratory, Pune, enlightened students on Horticulture, emphasizing its present scenario, importance, features, challenges, and career opportunities. These diverse topics and expert guidance aim to help students explore future prospects and career paths.

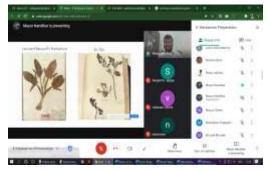




#### Online Workshop on E-herbarium preparation Botany (30th Jan.2021)

Dr. Mayur Nandikar, Senior Scientist at Naoroji Godrej Centre for Plant Research, Shirwal, Satara, conducted a workshop guiding students on the preparation of E-Herbarium—an advanced technique in Taxonomy. Dr. Nandikar provided comprehensive insights, covering basic to advanced information on Herbarium and E-Herbarium, along with discussions on career opportunities in E-Herbarium preparation. The workshop, attended by 100 participants, received positive feedback for its valuable content and guidance.





#### Online Drawing Competition on World (Wetland Day Botany & Zoology on 2nd Feb 2021)

In celebration of World Wetland Day on February 2nd, the Department of Botany at PDEA's Waghire College organized an Online Drawing Competition focusing on various wetland-related subjects such as Wetland Habitat, Formation, Extinction, Bank, and Bottom. A total of 28 students participated, submitting their drawings in .pdf or .jpeg format.

#### Intercollegiate Quiz Competition Botany & Zoology

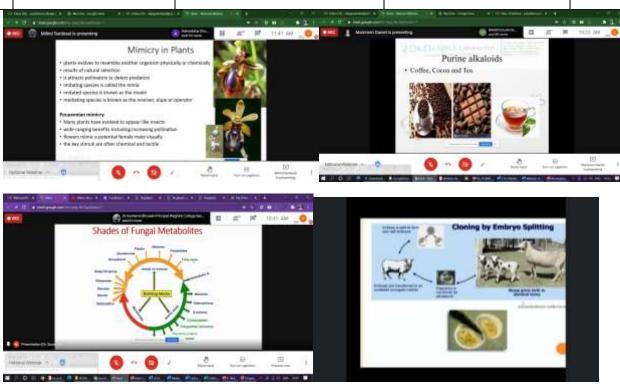
PDEA's Waghire College in Saswad, under the DBT-STAR College Scheme, organized an Intercollegiate Quiz Competition on Life Sciences, covering Botany and Zoology. The competition involved 25 questions sent via Google Form to students from various institutions. Kolekar Kiran Ramesh from Vidya Pratishthan's Arts, Science, and Commerce College, Baramati, emerged as the top scorer, receiving a prize for achieving a perfect score of 25 out of 25. E-certificates were awarded to all participants who scored above the passing threshold. A total of 386 students participated in this engaging competition.

#### Online National Webinar on "Recent Trends in Plant Sciences"

Department of Botany has organized Online National Webinar Series in from 20th March, 2021 to 25th March, 2021 from 10.00 AM to 12.00 AM. The schedule of the program is given as follows,

Sr.	Name of the Resource	Topic of the Webinar	Day & Date	Time	and
No	Person			link	

1.	Dr. M. M. Sardesai	Plant Taxonomy	Saturday, 20/03/2021	10.00 AM to 11.30 AM link: https://meet.g oogle.com/tn s-iywg-ktu
2.	Dr. Daniel M.	Phytochemistry: Basics & Applications	Monday, 22/03/2021	
3.	Dr. Varsha Shrirama	Plant Tissues Culture	Tuesday, 23/03/2021	
4.	Dr. H. B. Sonawane	Fungi reservoir of metabolites and their applications	Wednesday, 24/03/2021	
5.	Dr. Gaurav Sanghvi	Cloning Techniques	Thursday, 25/03/2021	



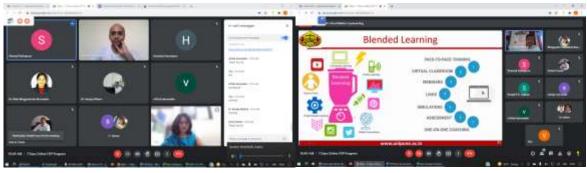
"One Day training on Interactive panel use for advancement of teaching and learning" (12th March 2021, at 11:00 AM Onwards)

This one-day workshop aimed to familiarize teachers with the applications of the Senses interactive panel, enhancing their understanding of its various functions for improved teaching and learning through ICT. Given the current pandemic scenario, advanced ICT tools are crucial for effective education. Sr. Engineer Pradhnya Kambale conducted the interactive and hands-on training session for 18 science faculty members, including heads of the Departments of Zoology, Microbiology, Botany, Chemistry, and Physics.



# Seven -day online faculty development program (FDP) on "enriching online teaching and learning"

This FDP centers around "Enriching Online Teaching and Learning" with a focus on advancing knowledge and providing hands-on experience in using game-design, Excel, PowerPoint, and other software tools to enhance the teaching and learning process. The topics covered include Gamification for Learning and Development, Excel and PowerPoint advanced training, Moodle Training, supporting software for online teaching, effective online demonstrative teaching for Life Sciences, and Blended Learning. These approaches aim to enrich online education by combining traditional and online education systems, fostering interactive and effective pedagogy. Blended learning creates opportunities for online interaction alongside traditional classroom methods, contributing to an effective teaching process.





One day workshop on flower arrangements (15/11/2021): The online one-day workshop featured Director Mrs. Kalpana Savant from Grand Academy of Savant Patil, (GRASP), Kolhapur, as the guest speaker. Mrs. Savant guided student participants through various concepts of flower arrangements, emphasizing its commercial importance and career prospects. The workshop included a detailed presentation during the first session, addressing queries, followed by hands-on training and demonstrations of various flower arrangements in the afternoon. The workshop garnered positive feedback from 278 participants.







#### One day workshop on Button mushroom cultivation

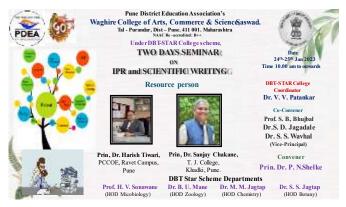
#### Two days Handson workshop on Plant Tissue Culture (7th & 8th March 2022)

To celebrate National Science Day, we organized a Two-day Hands-on Workshop on Plant Tissue Culture. Dr. Pradnya Kedari, ex-Project Manager at Agarkar Research Institute, served as the guest speaker and demonstrator. The workshop covered techniques from basic to advanced, including Agrobacterium-mediated transformation. Dr. Kedari highlighted the importance of these skills in plant biotechnology and job opportunities. The workshop, attended by 47 students from TY, SY, and FY BSc Botany classes, involved theoretical sessions and hands-on training. The Botany department's six faculties actively participated, conducting experiments from media preparation to transformation and synthetic seed preparation.



#### Two-day Seminar on IPR and Scientific writing"

Under the DBT STAR College Scheme, we conducted a "Two-day Seminar on IPR and Scientific Writing" on January 24th-25th, 2023, starting at 10:00 AM. Guest speakers Prin. Dr. Harish Tiwari and Prin. Dr. Sanjay Chakane addressed 76 participants, including faculty members and students from BSc TY, SY, and a few FY classes. Prin. Harish Tiwari covered the patenting process, while the other speaker focused on scientific writing and publication. Prin. Pandit Shelke emphasized the importance of research for publications and patent filing, motivating participants to generate patent ideas. We extend our gratitude to DBT for enabling us to organize such impactful seminars, workshops, and training programs.







#### Academic year 2022-2023:

During the academic year -2022-2023, The Zoology department had organized a Drawing competition themed "Umbrella and Keystone species of Ecosystem" on 6<sup>th</sup> October 2022; Collage painting competition on 10<sup>th</sup> October 2022 and Quiz and Puzzle activity for the F.Y.B.Sc and S.Y.B. Sc Zoology students on occasion of Wildlife Week Celebration on 6<sup>th</sup> October 2022. 31 students participated in the drawing competition; 31 students participated in Collage painting; 90 students and 99 students participated in Quiz and puzzle activity respectively. The competition's main objective was to make the students aware about the existing condition of wildlife and students participation in conservation of wildlife at personal

level.



Collage painting and Drawing representations done by students

Also, a Guest lecture on "Wild Life and Wild Life Photography" was organised by the Zoology department under the DBT Star college scheme on 10th October, 2022. Through this lecture, 89 students obtained knowledge on wild life, its ecological and economical importance. Also, students learned the nuances of Wild life Photography. 3 students from Zoology dept. participated in the Owl festival on 2<sup>nd</sup> December 2022.



Shri. Prashant Borawake on "Wildlife and Wildlife Photography" on 10th Oct, 2022

The Zoology department in collaboration with the Botany and Microbiology departments of Waghire College had organized two days workshop titled "Workshop on Life science" on 30<sup>th</sup> January and 31<sup>st</sup> January, 2023 under the DBT- STAR College scheme. Through the different talks on various topics related to Life science, around 131 students benefitted. During this workshop, eminent guest speakers like 1. Dr. S.L. Laware, Principal, ASC College, Sonai, Nevasa, Ahmednagar spoke on "Techniques in Biodiversity conservation", 2. Dr. Aruna Bhambre, Principal, B. Ed College, Sonai, Nevasa, Ahmednagar spoke on "Environmental Awareness" and 3. Miss. Chaitali Kshirsagar, Director, MAESA Institute spoke on "Ecosystem" on 30<sup>th</sup> January 2023.



On 31<sup>st</sup> January, 2023, the second day of workshop, speakers like 1. Dr. Gulab D. Khedkar, Molecular Geneticist, Scientific Director of Paul Hebert Centre for DNA Barcoding, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad spoke on "Research Ethics"; 2. Dr. Laxmikant Shinde, Head and Professor, Zoology Department, JES College, Jalna spoke on "Billion Dollar Biological Threat-Mosquito" and 3. Dr. Narsingrao N. Bandela, Dept. of Environmental Science, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad spoke on "New Trends in Environmental Science"



Workshop on Aerobiological techniques (07th January 2022)

The Aerobiological Techniques Workshop held on 07<sup>th</sup> January 2022 at Waghire College, Saswad was a comprehensive and insightful event focused on exploring various methodologies and technologies in the field of aerobiology. The workshop spanned 01 day, providing attendees with an intensive learning experience. The workshop was caPrried out in presence of Dr. Sudam Jogdand who is the student of Professor Tilak who invented Tilak air sampler. Total 30 students Participated in this workshop. Presenter shared invaluable insights from their research and field experience, enriching the workshop with diverse perspectives.



WORKSHOP ON "ALGAE CULTURE" (15/01/2021)

The Botany Department conducted a concise Algae Culture Workshop on January 15, 2021, involving 40 participants. Led by experts Dr. Vinayakk Lokhande and farmer Iyappan S, the workshop combined theory and hands-on demonstrations. Participants gained insights into algae biology, cultivation techniques, and practical applications. The success of the workshop was attributed to expert guidance and active participant involvement. Special emphasis was placed on Azolla culture for biofertilizer production.





Training program and workshop on "Ayurvedic Formulation" (25 Feb.2022)

Mrs. Anuja Pandit conducted a one-day workshop on Ayurveda formulation, guiding students on principles like Rasa, Virya, and Vipaka. The workshop aimed to enhance understanding of Ayurvedic principles and empower participants to create herbal remedies. In the current scenario, Ayurvedic formulation presents a commercially viable and career-oriented opportunity. The hands-on session covered creating basic Ayurvedic formulations, with participants actively engaging and providing positive feedback.



Guest lecture I (28th and 29th June 2022)

Prof. C.P. Hase from Baburaoji Gholap College delivered a lecture on "Plant Physiology," covering various aspects of plant structures and functions. The session included discussions on photosynthesis, respiration, mineral nutrition, and transportation in plants. The second session featured Mr. Rajkumar Pawar from ELA Foundation, who spoke on "Biodiversity Conservation," emphasizing the importance of biodiversity and its role in supporting life. Both lectures engaged 100 students, and the guests' answered questions from the participants, making the sessions informative and impactful.



#### **Guest Lecture series (21-22/9/2021)**

Dr. R.B. Bhagat from Baburaoji Gholap College delivered a lecture on the Angiosperm Phylogeny Group (APG) and its significance in plant taxonomy. She explained the principles of APG I (1998), APG II (2003), and APG III (2016) with examples. In the second session, Mr. Prashant Borawake from Gram Seva Prathisthan spoke on "Environment Conservation," addressing current environmental issues and providing solutions for conservation and planet protection. The guest lecture series attracted 79 students, making both sessions informative and impactful.



#### TWO DAY'S WORKSHOP ON HORTICULTURAL TECHNIQUES (15th &16th April 2022)

Mr. Anand Darveshi from Krushi Vigyan Kendra, Baramati, conducted a horticultural skills course, focusing on practical knowledge and real-world experience in plant cultivation. The workshop covered a range of horticultural practices, from basic to advanced, with an emphasis on sustainability. Participants, including fifty registered individuals, appreciated Mr. Anand Darveshi's guidance on horticultural methods, career prospects, and the benefits and challenges of agriculture in controlled environments. The workshop received positive feedback, particularly for its practical demonstrations and hands-on activities.



One day workshop on "Instrumentation techniques- Microscopic & Microtomy" (28/12/2021)

Dr. Kishore Rajput and Mr. Ajeet from MS University, Baroda, conducted a one-day workshop on microscopic techniques and microtomy. The workshop covered various techniques such as SEM, TEM, and Cytofluorometry, emphasizing their importance and career prospects. The participants, totaling 50, benefited from the theoretical session with slide shows and interactive discussions. In the afternoon, hands-on training and demonstrations were provided for the microscopic techniques. Mr. Ajeet explained the significance of microtomy, detailing the microtome's role in preparing biological samples for microscopic examination. The participants expressed satisfaction, and both experts addressed queries effectively, receiving positive feedback for the workshop.



#### Training program on "MUSHROOM CULTIVATION" 16/07/2022

Dr. Suresh Naidu, an international consultant in Button Mushroom Technologies, conducted a one-day workshop, enlightening students on button mushroom cultivation techniques, business prospects, and nutritional values. The sessions covered various aspects, including substrate preparation, inoculation methods, and disease management. The workshop highlighted the commercial significance and career opportunities in mushroom cultivation. The interactive hands-on training provided detailed insights into cultivation practices. A total of 50 participants attended, expressing positive feedback and showing interest in pursuing mushroom cultivation as a business. The workshop successfully conveyed practical knowledge and business insights to the participants.



#### Hands on Workshop on Preparation of Herbal Cosmetics (04th October 2021)

Considering overall well-being, holistic approaches to beauty are common in herbal cosmetics. Sustainability, is a frequent technique in the cultivation of plants and herbs used in cosmetics, reducing the environmental impact of the cosmetics industry. This reflects the growing desire for ethical and cruelty-free cosmetics. Botany Department organized workshop on "Preparation of Herbal Cosmetics" on 04<sup>th</sup> October 2021 for F.Y, S.Y & T.Y students. Workshop was started at 10;00 am and was carried out under the presence of our guests Dr. Priyadarshani Kadus & Dr. Atul Kapadia. Total 25 students were participated in this workshop. Students prepared Herbal Serum, herbal face packs, etc. The students' interest in herbal cosmetics increased significantly as a result of this workshop.



#### Workshop on preparation of Bonsai (06th October 2021)

An enthusiastic group of people from a variety of backgrounds attended the well-received bonsai preparation workshop that took place on 06<sup>th</sup> October 2021 at Waghire College of Arts, Commerce & Science, ready to learn more about the craft of bonsai cultivation. The objective of the workshop was to impart theoretical knowledge and practical expertise in the art of making and caring for bonsai trees. This workshop was carried out by Ms. Shailaja Kapila. Total 30 students were participated in this workshop from class F.Y, S.Y, T.Y & M.Sc. Botany. The Bonsai Preparation Workshop proved

to be a successful endeavor, providing participants with the knowledge and skills needed to embark on their bonsai journey.



Workshop on Preparation of Herbal Cosmetics (02<sup>nd</sup> July 2022) The Botany Department conducted a workshop on "Preparation of Herbal Cosmetics" on 02nd July 2022, emphasizing the holistic and sustainable approach of herbal cosmetics. Dr. Vijay Gadgil and Dr. Asmita Jadhav were the workshop guests, engaging 25 students from F.Y, S.Y, and T.Y. The participants actively prepared items such as Herbal Hair dye and Herbal Hair Shampoo, fostering a keen interest in Herbal Cosmetics among the students.



Two days Hands on Workshop on Aerobiological techniques (28th & 29th March 2023)



The Botany Department conducted a two-day Hands-on Workshop on Aerobiological Techniques on March 28th and 29th, 2023. The workshop covered air sampling, pollen monitoring, spore identification, and data analysis. Mr. Akshay Shete led the practical demonstrations, engaging 30 students. Participants actively participated in hands-on sessions, gaining practical experience with various equipment and methodologies discussed in theoretical sessions.

#### **WORKSHOP ON ALGAE CULTURE (6/08/2022)**

The Botany Department conducted a workshop on micro-algae culture on August 6, 2022, with the participation of 35 students. Dr. Manisha Sangale and Mr. Krishikesh Khadde delivered lectures, offering theoretical knowledge and hands-on experience in algae cultivation. The workshop covered essential aspects of algae biology, emphasizing ecological significance and applications. Practical sessions allowed participants to set up and manage algae cultures, promoting a deeper understanding. The interactive environment facilitated student engagement and interaction with experts, making the Algae Culture Workshop a valuable educational experience.





Training program and workshop on "Ayurvedic Formulation" 22 April.2022

A one-day session on Ayurvedic formulation was conducted, where the first session focused on Dr. Suresh Naidu guiding students through Ayurvedic formulation techniques, emphasizing concepts of Rasa, Virya, and Vipaka. The workshop aimed to enhance participants' understanding of Ayurvedic principles and practices related to herbal treatments. A total of 50 participants attended the session, providing positive feedback.



#### **WORKSHOP ON HERBARIUM PREPERATION (1/05/2022)**

Preparation of Herbarium is an advance technique in Taxonomy and it's important in present scenario. On this background, Dr. Nandikar has guided the students from basic to advance information in Herbarium preparation as well as career opportunities in Herbarium preparation. Sir gave some ideas regarding Herbarium preparation of regional flora of Purandar. 50 participants have joined for this workshop and gave their positive feedback regarding the same.

#### **WORKSHOP ON HORTICULTURAL TECHNIQUES (15th February 2022)**

In the horticultural techniques workshop, Dr. B.M. Shinde from Annasaheb Waghire College, Otur, guided students on practical aspects of plant cultivation. The focus was on sustainable methods applicable in diverse horticultural settings. Dr. Shinde provided insights from basic to advanced information in horticultural techniques, emphasizing career opportunities. The workshop attracted 50 participants who appreciated the hands-on activities and practical demonstrations, expressing satisfaction with the discussions on the benefits and challenges of controlled environment agriculture.



#### **Training Program in Plant Tissue Culture (19/4/2022)**

The Botany Department organized a one-day Plant Tissue Culture training program, covering basic to advanced techniques, including Agrobacterium-mediated transformation. Dr. Varsha Shriram, an expert from Ramkrishna More Mahavidyalaya, Akurdi, discussed the current scenario and job opportunities in plant tissue culture. The workshop had 50 student participants, hands-on training, and active involvement from all six Botany faculty members. It included theoretical sessions, hands-on experiments, and practical sessions on transformation and synthetic seed preparation conducted by students the following day.



Hands on training for Mame Bonsai preparation (06th July 2022)

At the well-received bonsai preparation session held on July 06, 2022, at Waghire College of Arts, Commerce & Science, a diverse collection of enthusiastic individuals eager to learn more about the art of bonsai care showed up. The workshop's goal was to transfer theoretical understanding and hands-on skill in the art of creating and maintaining bonsai trees. This workshop was carried out by Dr. Erach Bharucha. Total 30 students were participated in this workshop from class F. Y, S.Y, T.Y & M.Sc. Botany. The Bonsai Preparation Workshop was a great success, giving participants the information and abilities, they needed to start their bonsai journey.



Seed germplasm conservation 9th May 2022

The Department of Botany and Gram Gourav Pratisthan, Khalad jointly organized Seed Germplasm conservation activity for the Academic Year 2021-22. The Guest lectures and Seed Germplasm exhibition organized on 9th May 2022, Mr. Yogesh Magar (Project Head, Gram Gourav Pratisthan and Mr. Prashant Borawake (Co-ordinator, Gram Gourav Pratisthan) Guided the students about the Native plants seed Germplasm Collection and Conservation. The Exhibition of the Native seed Germplasm organized and total 45 students display the collection of the Native seed Germplasm. Principal Dr. Sushama Bhosale Guided the students about the importance of the conservation of the Native seed plants. Dr. S.S. Jagtap (Head of Botany Dept), Dr.V.V. Patankar (Co-ordinator DBT STAR Scheme), Dr. S. A. Kalhapure, Prof. Swati Sawant was present for the programme.





During the academic year -2022-2023, The Zoology department had organized a a guest lecture on Basic Entomology on 12/9/2022 for the F.Y. and S.Y. B. Sc. Zoology students from 10.00 am to 12.00 noon. The speaker for the lecture was Mr. Pandurang Madane, He explained through various examples how the wild animals like snakes, foxes, rabbits, hyena, birds etc. lose their lives while crossing the road in the villages or forest region adjoining the villages at night time. Since proper help does not reach them on time and also due to lack of proper medical knowledge for primary treating of the wildlife, many animals succumb to death. He explained how certain precautionary measures taken by the people like calling a veterinary doctor, forest officials and police; putting a cloth on the injured animal to calm or soothe it; tying a torque around the animal's injured body part can save the life of a wild animal. 50 Students benefitted from the above lecture.



The Department of Zoology had organized a Guest lecture on Wildlife on 13/10/2022 in the Zoology Laboratory from 11.00 am to 2.00 pm for F.Y.B. Sc and S.Y.B. Sc students. The speakers of the guest lecture were Dr. Suruchi Pande, Vice Chairman of Ela Foundation and Head of Nilkanth Joshi Lab of Ethno-biology of Ela Foundation; Shri. Rajkumar Pawar, Coordinator of Ela Habitat, Pingori and Dr. Murlidhar Mahajan, Environment conservationist. During the Guest lecture on Wildlife, Dr. Suruchi Pande spoke on "Indian Religious Festivals-Forgotten nature, Conservation values and Wildlife crimes". She spoke about how all the festivals falling in different months of the year in our Indian culture serve as conservation strategies with regards to the wildlife. Shri Rajkumar Pawar spoke "Our Surrounding and Wildlife Conservation". He spoke on how one needs to be vigilant and contribute even in slightest way in wildlife conservation through different examples. While Dr. Murlidhar Mahajan spoke on "Students- The major contributor in wildlife conservation". He emphasized on how students can bring about a major change in wildlife preservation when taught the importance of wildlife. The whole family of the student also is indirectly involved in conservation when a student seriously gets involved in wildlife conservation. From these lectures, 49 students from both the classes benefited.



# **9.00** am to 3.00 pm. The main objective of organizing this lecture was to make the student understand the basic part of Apiculture like different types of honeybees used in apiculture, their habits and nesting behavior, the ecological role played by honeybees, the importance of honeybees in human's life, the different equipment's used in rearing, the products obtained from honeybees, the economics

A guest lecture on Basics of Apiculture on 22/9/2022 for the students of S.Y.B. Sc. Zoology from

involved and the skill based employment provided by apiculture. Guest speakers invited were Mr. Prashant Gawade and Mr. Alpesh Shah from Kendriya Vidnyan Kendra, Malegaon Budruk, Tehsil Baramati. 30 students benefitted from this lecture.





A workshop on Demo practical's related to Extraction of different honeybee products on 25/11/2022 for the students of S.Y.B. Sc. Zoology from 10.00 am to 3.00 pm. The main objective of organizing this lecture was to make the student understand the extraction process used for extracting honeybee products like honey, beewax, pollens, propolis and royal jelly. Mr. Sachin Kshirsagar and Manoj Gawade from the Kendriya Vidnyan Kendra Baramati showed the different equipments used for the extraction process and explained how it is carried out without causing any damage to the bees by using the equipments. They also showed the different products brought from their institution to the students. They emphasized that Apiculture provides not just self-employment to students but also can be used for pollination in farms by lending the bee boxes to the interested farmers at a price. 51 students were benefitted.



The Zoology department had organized a visit for F.Y.B.Sc. and S.Y.B.Sc Zoology students to the Vermicompost unit of Gram Gaurav Pratisthan, a Non-Government Organization located in Khalad village of Purandar Tehsil on 02/11/2022. The visit was organized so as to the make the concept clear to the students with regards to the Vermiculture and Vermicomposting. The NGO is established in a 10 acre area and as a part utilized for Vermicompost unit. It has two Vermicompost beds of 6ftx 3ft containing the Vermicompost in it. Mr. Yogesh Magar and Mr. Prashant Borawake explained the students the entire process right from the construction of bed, the cost incurred to the marketing of Vermicompost. They explained the earthworm species (*Eisenia foetida*), its breeding process and its habits. They also explained the entire process of Vermiculture and that Vermicompost formation takes place in 90-120 days. They also explained

the usefulness of Vermicompost and vermiwash to the assembled students. 46 students observed the Vermicompost unit.



Department had organized Eight days Lecture series titled "Vector Borne Diseases and Water Borne Diseases its Control" on 2<sup>nd</sup> to 10<sup>th</sup> January, 2023 under the DBT- STAR College scheme. During this lecture series, eminent guest speaker Dr. Vinod G. Sutaone on vector borne and water borne diseases like Chikungunya, Malaria, Dengue, Filaria etc.



#### The Zoology department had organized a guest lecture on Vermicomposting on 15/03/2023

for the students of F.Y.B. Sc. and S.Y. B.Sc. Zoology from 9.30 am to 1.30 pm. The main objective of organizing this lecture was to make the student understand the importance of vermicomposting in agricultural use. Vermicompost is a natural product obtained from earthworms. It enhances plant growth and causes maximum yield in plants. Vermicomposting provides self – employment too. Mr. Prashant Borawake, Environmentalist and Coordinator of Paani Panchayat NGO explained to the students, the different types of earthworms, the useful species observed in Saswad, vermicomposting process, the vermicompost bed and benefits of

using the vermiwash and vermicompost in farming and gardening instead of inorganic fertilisers. 46 students benefitted from this lecture.

The Zoology department had organized a guest lecture on Basic Entomology on 25/4/2023 for the F.Y. and S.Y. B. Sc. Zoology students. The speaker for the lecture was Mr. Dattatray Murkute, a Wildlife Conservationist and Snake rescuer. The main objective of organizing this lecture was to make the student understand the difference between the venomous and non-venomous snakes, the identification of these snakes, characteristic features of certain venomous snakes found in Purandar tehsil, the basic precautionary measures while moving in snake occurring areas like grasslands, garbage dumping grounds, forests etc. the difference between the snake bites based on wound marks and the necessary first aid treatment measures to be taken after the snake bites. 48 students were benefitted from this lecture.



#### Hands on Training on Spectrophotometry (2021-2022)

department Under DBT Star College Scheme, The of Chemistry had organized Hands on training programme on Spectrophotometry for TYB Sc students. In this training workshop students learns about the fundamental basic principle of spectrophotometry, laws of spectrophotometry, and applications of spectrophotometry in chemical analysis. Students also learns about the preparation of samples for spectrophotometry and their analysis, students practiced the practical handling of instruments induvisiually. For this hands on training programme 50 - T Y B Sc students participated. The hands on training programme is organized in collaboration with SGRS College of Pharmacy Saswad and Prof. Dr. Ganesh Nigade delivered the demonstration on spectrophometry to students.





#### Hands on training on Flame Photometry:

Under DBT star college scheme, the department of Chemistry organized another hands on training programme on flame photometry in collaboration with SGRS college of Pharmacy, Saswad. For this workshop Dr. Vaibhav Shalimar was invited as a Resource Person and he explained and demonstration in details about Flame photometry. In this hands on training programme, students learns and understand the basic principles of flame photometry and general applications of flame photometry. Students also know, how to use the flame photometry for identification of Na, K and Ca like metals and their analysis. Near about 50 T Y B Sc Chemistry students participated for this Hands on Training Programme on Flame Photometry.





#### **Workshop on Perfume Synthesis:**

Under DBT Star College Scheme, The department of Chemistry also organized workshop on Perfume Synthesis for this workshop Prof. Dr. Fazzil Shaikh, Department of Chemistry, Poona College, Pune was invited as a resource person. He delivered excellent and simple method of preparation of

perfume. For this workshop 50 S Y B Sc students participated. From this workshop students know how to synthesize perfumes, dilution and composition of chemicals for preparation of perfumes etc.



#### Workshop on Sanitizer and Hand wash Making:

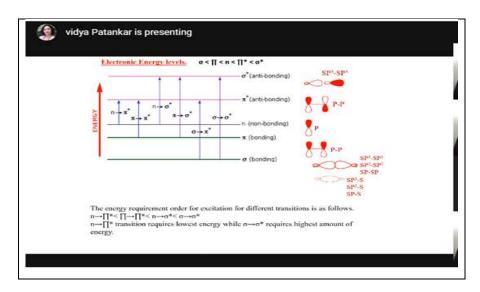
The Department of chemistry also organized workshop on Sanitizer and Hand wash making under DBT Star College Scheme for T Y B Sc Chemistry Students. For this workshop Dr. fazzal Shaikh was invited as a resource person. He explained a very simple method for preparation of alcohol based hand sanitizer. Students learns and understand the important ingredients for making hand sanitizer such as Isopropyl alcohol, Alove Vera gel, Lemon Juce etc. for making an effective hand sanitizer the alcohol and alove vera proportion must be fix 2:1 proportion and for fragrance Lemon Juice is also added. Students make hand sanitizer and used for hand cleaning. Students also know how to use hand sanitizer. Students also learns use of hand sanitizer help finish a wide range of disease or pathogens on hands, including the SARS-CoV-2, coronavirus etc. The students also learns the importance hand sanitizer and hand wash to prevent coronavirus. For this workshop near about 50 T Y B Sc students are actively participated.





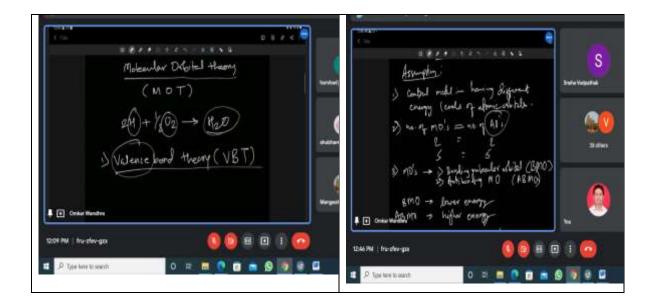
#### **Guest Lectures on Spectroscopy**

The Department of Chemistry also organized the guest lecture on Spectroscopy under DBT Star College, Scheme. For this guest lecture Dr. Sangeeta Jagtap, Department of Chemistry, BG College, Sanghavi, invited as a Resource Person. Dr. Sangeeta Jagtap delivered a excellent talk on Spectroscopy. Students learns and understands the what is spectroscopy, basic principle of spectroscopy, electromagnetic radiation, electromagnetic spectrum, energy levels of molecules, Intensity of spectral lines, selection rules and Spectral analysis of data etc. For this ueust lecture 50 students of TYB Sc present.



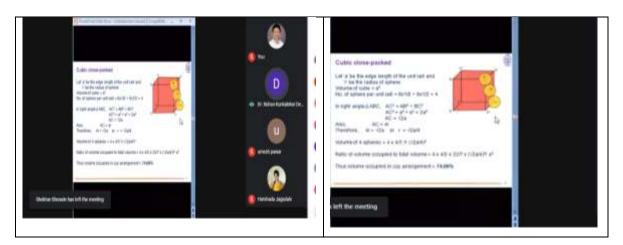
#### **Guest Lecture on Co-ordination Chemistry:**

Department of Chemistry organized guest lecture on Co-rdination Chemistry. For this guest lecture Prof Wandhare D M , Amruteshwar college, was invited as a resource person. He discussed fundamentals of Co-ordination chemistry, difference between double salt and coordination complex, Werners Co-ordination theory, CFT, VBT and MOT with suitable examples. Studens are able to learns and differentiate the uses of VBT, CFT and MOT for studding the coordination complexes. For this workshop 50 T Y B Sc students presents.



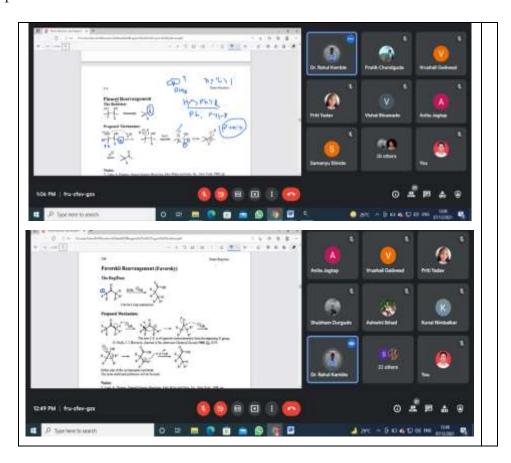
#### **Guest Lecture on Crystal Structure:**

The department of chemistry organized guest lecture on Crystal Structure for T Y B Sc students. For this guest lectrure Dr. S K Nikam, Associate Professor, Department of Chemistry, A T College, Bhor, Pune was invited as Resource Person. He gave elaborative lecture on various points including Introduction to Crystal structure, amorphous and crystalline solid, Polymorphism, Laws of crystallography, Crystal structure, Braggs Eqaution, and their application etc. Students are able to understand the differentiation between Amorphous and Crystalline solid, laws of crystallography, Weiss Indices and Miller Indices and their calculations, Braggs Equations, Calculation of no. of atoms per unit cell of Cubic lattice, Body centered lattice, and face centered Lattice etc. For this lecture 50 students of T Y B Sc class were present.



#### **Guest Lecture on Rearrangement Reactions:**

Under DBT star college scheme, the department of chemistry also organized guest lecture on Rearrangement Reactions. For this lecture on rearrangement reactions Dr. Hari Pawar, Professor, Department of Chemistry, Abasaeb Garware College, Pune. He explained Pinacol-Pinacol rearrangement reactions, Bekmann Rearrangement reactions, Baeyer Villiger rerangement, Favoraskii Rearrangements reactions with different exapmles of each reactions. Students learns and understand the reaggement reactions with specific and various examples. For this lecture 50 students were presents.



#### **Guest Lecture on Volumetric Analysis:**

Under DBT Star College, the Department of Chemistry, organized guest lecture on Volumetric Analysis. For this guest lecture Prof. Manojkumar Tapre, Assistant Professor, Department of Chemistry, Amruteshwar College Vizer, Vellha, Pune was invited as a Resource Person. From This lecture students learns, Types of chemical analysis, volumetric analysis, Types of Volumetric analysis, Neutralization Titration, Complexometric Titration, Redox Titration, Precipitation Titrations with suitable examples. Students are able to define and understand basic terms related to volumetric analysis such as Titrand, Titrant, Titration, End Point, Neutralization Point, and Equivalence point. Students also understand the theory of indicators, One and two color indicators etc. For this guest lecture 52 students of S Y B Sc class were present.

#### **Guest Lecture on Stereochemistry:**

The Department of Chemistry organized guest lecture on stereochemistry for the students of First Year B.Sc.For this lecture Prof. S B Dhotre, Associate professor, Department of Chemistry, Annasaheb Magar College, Hadapsar, Pune was invited as resource person. He explained

fundamentals of stereochemistry, including definition of stereochemistry, Assymeric Carbon atom, R and S Nomenclature with suitable examples. configurational and conformational isomers, Enantiomers, Disteriomers with suitable examples. From this lecture students are able to do R and S notations confidently for any given compounds.students are able to diffrenciate enantiomer and disteriomers etc. Near about 50 students of First Year B.Sc. Benifited.

#### **Guest Lecture on Quantum Chemistry:**

Under DBT Star College Scheme, Guest Lecture on Quantum Chemistry organized for F Y B Sc and T Y B Sc class students. For this Guest lecture Prof. Dr. Shrikant Nikam , A T College Bhor, Pune was invited as a Resource Person. He gave elaborative talk on various aspects of Quantum Chemistry including, Diffrence between Classical and Quantum mechanics, concept of Black Body radiation and Photoelectric effect, Heigenbergs uncertaintity principle, de-Broglie Hypothesis, Mathematical Wave Fuction ( $\Psi$ ), Physical Significance of  $\Psi$  and  $\Psi^2$ , conditions of Well –Behaved functions, Schrodinger's Wave Equation, Particle in 1D, 2D and 3D box. Near about 50 students of F Y B Sc and T Y B Sc benifted from this lecture.

#### Workshop on use of ICT:

The department of Chemistry also organized workshop on use of ICT for teacher's faculty members on 24.02.2024 at 11:00 am to 12:30 pm . For this activities Dr. R N More Associate Professor, A M College Pune, is invited as Resource Person. The workshop aimed to enhance educators' understanding of integrating Information and Communication Technology (ICT) tools into the teaching and assessment processes, aligning with the DBT-Star guidelines. The participants explored innovative approaches to leverage technology for effective learning outcomes. Dr. R N More, a seasoned expert in the field, shared valuable insights on incorporating ICT tools in chemistry education. He emphasized the importance of interactive and multimedia resources to make learning engaging and accessible. Practical demonstrations showcased various applications, software, and online platforms suitable for chemistry education. Participants actively participated in hands-on sessions, gaining practical experience in using ICT tools for designing lesson plans, interactive quizzes, and virtual experiments. The workshop fostered collaborative discussions on best practices and challenges in implementing ICT in the educational landscape. For this workshop the teachers from Chemistry, Microbiology, Botany and zoology department are actively participated.





#### **Hands on Laboratory Best Practices:**

The Department of Chemistry also organized hands on Laboratory Safety best practices for non-teaching staff of the chemistry department on 12/07/2023. For this workshop, Mr. Rahul Jagtap, Industrialist, from Pune was invited as a Resource Person. He gave very Elaborative Lecture on Laboratory Best Practices. He also guided non-teaching staff how to deal with concentrated acids, and highly toxic chemicals, use of fire extinguishers during burning events happen in laboratory, how avoid explosion etc. For this lecture all teaching and non-teaching staff of the department was present.

Hands on training on Preparation of Standard Solutions: Under DBT Star College Scheme, the department of Chemistry also organized Hands on training of preparation of standard solutions for on 14/08/2023. For this hands on training on preparation of standard solutions we have invited Dr. D R Shinde, Associate Professor, Department of Chemistry, Ramkrishna More College, Akurdi, Pune. He gave very elaborative lecture on methods of preparation of standard solution. He explained the basic terms Mole, Molarity, Normality, Molality, Mole fraction in detail. How to do dilution, how to make dilution using Volumetric Flask for preparation of standard solution. Near about 74 students are present for this activity.

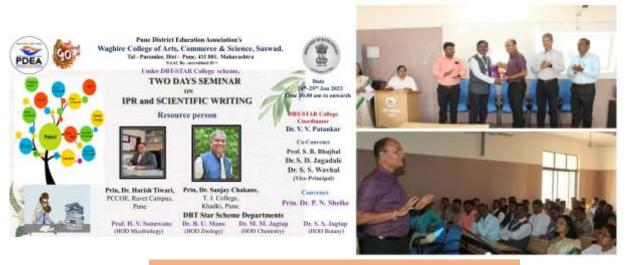
Green synthesis of nanoparticles: The interdisciplinary hands-on training workshop on nanoparticle synthesis was was organised by department of chemistry, Microbiology and Botany under DBT STAR scheme of the college during the academic year 2022-2023 on 26/07/2023 at 11:00 am to 2::30 pm on very important topic "Nanoparticle Synthesis" For this workshop we have invited a resource person Dr. Ashok Bankar Assistant Professor, Deapartment of Microbiology, MES Abasaheb Garware College, Pune, Maharashtra, India. The workshop on nanoparticle synthesis is conducted in two session, Session-I (11:00 am to 12:30 pm) includes the theoretical explanation of methods of nanoparticle synthesis, chractewrization techniques and different applications of nanoparticles in various fields. Session-II (1:00 pm to 2:30 pm) provides actual hands-on training on Nickel, Copper, gold and silver nanoparticle synthesis. The students of chemistry, microbiology and botany departments actively involved and experienced how the colour changes during the formation





of nanoparticle. The students prepared the Nickel nanoparticle using extract of *Jetropha Curcus plant* extract and Gold nanoparticle pomegranate leaves. The students have learn the synthesis of nanoparticles and enjoyed both the sessions on nanoparticle synthesis. For this workshop near about 85 students are present.

## **Research Activities**



Workshop Report on "How to file patent" 3 patent granted and 2 in pipeline

#### **Research Activities**

Interactive Session o n "The role of Biofertilizers in Integrated Nutrient Management of crops"

Guest lecture on 'Future in Life Sciences' For T.Y.B.Scstudents









Lecture series on topic, "Scientific Writing and Communications'









### **Research Activities**









Dr. Gulah Khedkar delivering his talk on Research Ethics on Met January, 2023

**Workshop on Aerobiological Techniques** 







Hand's on Training Workshop Report on "Nanoparticle Synthesis"

## **IMPLIMENTATION OF NEP-2020**







#### B. Voc. Food Processing and Technology

#### World Food Day (Start-up idea's and poster presentation)



World Food Day celebration in the college
The World Food Day program was organized under the
guidance of Principal of the College Dr. Pandit Shelke ,on
behalf of the Department of Food Processing and
Technology.

#### Industrial visit to VRS food ltd.



- 1) Date of Study Tour: Tuesday, 29th Nov, 2022
- 2) Location of Study Tour: VRS food ltd. M.I.D.C. Newasa Industrial Area.
- 3) Participant Class:- F.Y.B.Voc S.Y. B.Voc and T.Y. B.Voc

#### Department of B. Voc. Retail Management

Study Tour 2023



Two days' workshop on "Entrepreneurship & Personality Development





- 1) Date of Study Tour: Friday, 3rd Feb, 2023
- 2) Location of Study Tour: Kokan Phalprakriya Sahakari Sanstha Maryadeet, Dabhol
- 3) Participant Class: F.Y.B.Voc S.Y.B.Vocand T.Y.B.Voc
- Retail Management
  4) Total Number of Students Participated in Tour: 41 students
- 5) The Number of Departmental staff accompanying the Tour4

#### **Tourism And Hospitality Management**

पर्यटनातील संधी या विषयावर व्याख्यान



#### Department of B. Voc. Retail Management

Study Tour\_2023



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#### **Tourism And Hospitality Management**

पर्यटनातील संधी या विषयावर व्याख्यान



## C. Co-curricular activities

Sr. No	Activities	Guest Name	No. of beneficiaries	Date
1.	Field visits	Travelling Prof.Atishkumar Gavit Prizes: 1st Pooja Kapare &	50	22/11/2022
2.	Organization of Science exhibition, Competitions	Rutuja Kapare  2 <sup>nd</sup> Shweta Phadtare  3 <sup>rd</sup> Chaitanya Randive & Tufal Mulani	100	14/12/2021
3.	Organization of Science exhibition, Competitions	Prof.Pradnya Jagtap Dr.R.U.Deshmukh Prize:1st Kadbane Sakshi & Kalange Shreya 2nd Jagtap Bhavana & Balgude Supriya 3rd Jagdale Vaishnavi & M.P.Megha Manu Consolation Prize: Botre Neha & Kolte Tanuja	100	22/07/2022
4.	Organization of Science exhibition, Competitions	Prof.Pradnya Jagtap Dr.R.U.Deshmukh Prize:1 <sup>st</sup> Kadbane Sakshi & Kalange Shreya 2 <sup>nd</sup> Jagtap Bhavana & Balgude Supriya 3 <sup>rd</sup> Jagdale Vaishnavi & M.P.Megha Manu Consolation Prize: Botre Neha & Kolte Tanuja	100	22/07/2022
5.	Salad Decoration and Rangoli Competition Poster presentation and visit to	Prof.Atishkumar Gavit Prof.Illias Travelling	50 6	16/12/2022 04/09/2022
6.	Saifabad College, Osmania University, Hyderabad	Travening		
7.	Medicinal Pants Garden development		35 Non-teaching staff	2022-23
8.	Industrial Visit at Surge Pharmaceuticals	Surge Pharmaceuticals, Jejuri MIDC	F Y B Sc - 60	19/01/2022
9.	Industrial Visit at Science Park, Pimpri Chinchwad, Pune Medical checkup, blood testing	Science park Pimpri Chinchwad, Pune Akshay Blood bank	T Y B Sc-50 30 parents	08/02/2023
10.	Project competition	Swachh Technology challenge	1staff+10students	04/01/2022

12.	Gynecological health check-up	Dr. Sunita Patil	31 ladies staff	31/03/2022
13.	Gynechologica health check up for girl students	Dr. Sunita Kale	50 students	8 <sup>th</sup> Mar 2023
14.	KadjaiVanrai Survey of Chambli Village	Sunil Kokare and B.S. Madbhavikar	50	30/12/2021
15.	International Day of Women	Dr. Anupama Walwalkar	50	11/02/2022
	and Girls in Science Earth Day Celebration	Ms Vaibhavi Sutaone Dr. Mahendra Jagtap	100	22/04/2022
16.	Lecture on Climate change and			
17.	its Impact on Biodiversity World Ozone Day	Dr. PradipAwate	30	16/09/2022
18.	World Habitat Day	Dr. Mahendra Jagtap	50	3/10/2022
10.				

#### **Field visits**

## Visit to KVK, Baramati - Hydrponics, PTC, Plant pathology labs, Orchid cultivation, Apiculture unit etc.

The study tour was organized to visit various labs of Krishi Vigyan Kendra (KVK), Baramati on



#### Visit to Aired zone Fruit Research centre of Fig and Custard apples



The department of Microbiology had organized a study visit for T. Y. B. Sc. Microbiology students on 21<sup>st</sup> March 2022 to Krishi Vigyan Kendra (KVK), Baramati, Innovative Research and Atal

Incubation Centre (AIC), AIC-Adt Baramati Foundation and Tirupati Balaji Agro Product Private Limited, Someshwar Nagar, Baramati.



A one day field visit was also organised for the S.Y.B.Sc Zoology students to the Apiculture and Fish farm unit of Krishi Vigyan Kendra, Baramati on 5th March, 2022. 42 students along with their Zoology teachers- Dr. B.U. Mane, Dr. B.S. Madbhavikar and Prof. S.A. Kokare received information with regards to honey bees species, honeybee products, beekeeping equipments, ecological role of honeybees and economy generated from apiary setting. Besides Apiculture, they also received information on Fisheries unit, which is a part of their syllabus. From Entrepreneurship and Zoological Skill development point of view, the students gained knowledge not just on Apiculture or Beekeeping skills but also on cultivation and marketing of fresh water edible fishes, cultivation of goats and sheep under Animal Husbandry and Poultry management.







Prof. S.A. Kokare conducted a one- day biodiversity survey of the Kadjai Vanrai, Chambli village; Tal. Purandar on 30<sup>th</sup> Dec, 2021 wherein he observed 37 bird species, 6 mammalian species and 12 invertebrate species in the scrub –arid grassland area of the Vanrai.

#### **Industrial Visit:**

The Department of Chemistry, was organized one day Industrial Visit at **Someshwar Sahakari Sakhar Karkhana Ltd (Sugar Manufacturing Industry)** under DBT STAR College scheme of the college during the academic year 2021-2022 on 30/03/2022. An industrial visit to Someshwar Sahakari Sakhar Karkhana provided practical insights for T Y B Sc students.





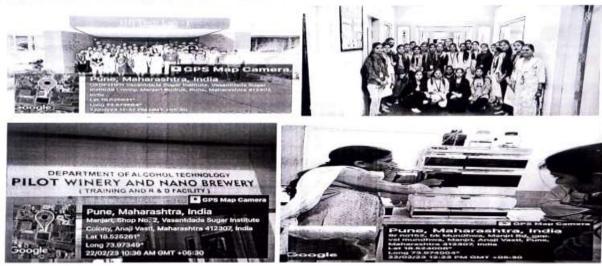
#### **Industrial Visit at Science Park, Pimpri Pune:**

Under DBT Star College Scheme, the department of chemistry organized Industrial Visit at Science Park, Pimpri Pune for T.Y.B.Sc students on 08/02/2023. Initially, we reach at Science Park, Pimpari Pune 10:00 am. Students enjoyed this vist at Science Park's diverse facilities 3D movie, Galaxy Show, the invention of wheel to the today's high end cars is exhibited. Students also learns From interactive displays illustrating fundamental scientific principles to advanced technological showcases, the park offered a comprehensive overview of various scientific domains. Science Park, a hub of knowledge and innovation, offers visitors a captivating journey through time, showcasing the evolution of human ingenuity. Among its diverse facilities, the 3D movie and Galaxy Show stand out, providing an immersive experience that traces the path from the invention of the wheel to the cutting-edge technology found in today's high-end cars. Near about 50 students and two faculty members were present for this visit.



The department of Microbiology had organized a study visit of T.Y.B.Sc. students to one of reputed institute in Pune, Vasantdada Sugar Institute, Manjari, Pune. At the VSI, students were taken to HiTech Lab I where they were shown different departments where they analyse molasses, water used in fermentation, laboratory scale fermenters to study effect of different parameters, such as pH, temperature, aeration, agitation as well as different microbial cultures on the production of alcohol. Then they visited to their sophisticated instrument room where instruments like HPLC, lon exchange chromatography, Gas liquid chromatography, flame ionisation detector, Uv-Visible double beam spectrophotometer were present. Students were given an explanation of these instruments' functions, principles, and uses.

Department of Microbiology: VSI Visit of T.Y.B.Sc students on 22<sup>nd</sup> Feb 2023



Another visit of T.Y.B.Sc. students was planned at Akshay Blood bank, Hadapsar.



#### Industrial Visit at Surge Pharmaceuticals Jejuri:

Under DBT Star College Scheme, the department of chemistry organized industrial vist at Surge Pharmaceuticals Jejuri For F Y B Sc students on 19/01/2023. Initially, we reach at Surge pharmaceuticals at morning 10:00 am. Mr. Praveen Kumar, Head, quality assurance, Surge Pharmaceuticals Pvt ltd. Jejuri MIDC, Pune welcomes and gave information about Surge pharmaceuticals.after that, students visited at various departments, Instrumentation, Data analysis, Production department, Quality control department etc. from this vist students learns how the drugs

is prepared, how to use different instrument for spectral analysis, use of FT-IR, UV-Visible spectroscopy, MASS spectrometer etc.



Science Exhibition and Start-up Project Competition 2021

Under the DBT STAR College scheme, a Science Exhibition and Startup Project Competition were held on 16/12/2021, providing students with a platform to showcase their innovative ideas and startup projects. Prof. Atishkumar Gavit inaugurated the event, and internal examination was overseen by Dr. B. U. Mane from the Zoology department. Despite COVID-19 constraints, 18 projects were demonstrated physically, adhering to government guidelines. Out of 50 entries, winners were announced, with Pooja Katare and Rutuja Malkar securing the 1st Prize, Shweta Phadtare the 2nd Prize, and Chaitanya Randive and Tufel Mulani the 3rd Prize.



Science Exhibition and Startup Competition (12/12/2022)

Under the DBT STAR College scheme, a Science Exhibition and Startup Competition were organized on 12/12/2022 for undergraduate and postgraduate students. The event was inaugurated by Balasaheb Bhintade, the city president of Rashtrawadi Congress. Prof. Pradnya Jagtap and Dr. V. V. Patankar served as external and internal examiners, respectively, with the presence of HODs, faculty, and the vice-principal. Out of 44 entries, 23 ideas were presented for the science exhibition. Six startup projects were showcased, and the winners were: 1st Prize: Kadbane Sakshi and Kalange Shreya (Innovation and Product: Puranpoli premix), 2nd Prize: Jagtap Bhavna S. (3D Hologram)

Balgude Supriya and Priyanka Gaikwad (Bioplastic preparation from Banana peel), 3rd Prize:

Jagdale Vaishnavi and Megha Manu (Easy seeds), Consolation Prize: Botre Neha Namdev and Kolte Tanuja (Innovation idea for the preparation of Temph from Soybean seeds).



Science Exhibition for UG students (18/01/2023)

Under **DBT** Star College Scheme, The department of Chemistry had organized Science Exhibition for UG B Sc Students on 18/01/2023 at 11:00 am to 2:30 pm. The main objective of this activity is to create research attitude among the students and to enhance the skill of presentation of research topic. The Principal of Pune District Education Associations Waghire College Of Arts, Commerce and Science, Saswad Dr. Pandit Shelake inaugurated the exhibition and Prof. Dr. Suresh B. Waghmode and Prof. Dr. Latesh K. Nikam were present as a chief judge. The exhibition included projects which shows use of solar energy, hydropower plant, global warming etc. Students had been prepared charts, models, power points and working models for presentation of their projects. The Exhibition was certainly successful because large number of students of under Graduate Science faculty were participated.



Flower and Rangoli Competition (6-10-2022)

The Botany Department, funded by the DBT STAR Scheme, organized a Flower Rangoli and Bouquet competition judged by an expert. The event took place on October 6, 2022, with enthusiastic participation from 48 students. The theme centered around flowers, celebrating the ancient art of Rangoli, reflecting Indian culture. Winners of the Rangoli competition were Zende Sharavani Balaso, Kumbharkar Jayanti Prakash, and Takawale Bhakti Pramod. Mayuri Jagtap, Zende Shravani Rohidas, and Nishad Roshani Bhushan were awarded for their excellence in the Bouquet competition.



## **D. Social Concerns Community and Environmental Sensitivity**









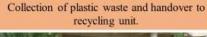






Cleaning of college campus and area nearby. Collected plastic and handover to recycling unit.







#### प्लास्टिक सकलन





Meri Mati Mera Desh



Cycle Rally

Beti Padhav Beti Bachav

# KARGIL DAY 26.07.2022 NATIONAL POLLUTION CONTROL DAY 05.12.2022 Poster presentation , Rally . Speech , Cleaning activity





Tree Plantation



#### NATIONAL POLLUTION CONTROL DAY 05.12.2022



### WORLD OCEAN DAY CELEBRATION: 08.06.2022



#### 8 th International Yaga Day 2022

In this academic year 2022-23 organized 8th International Yoga Day on 21st June 2022. In this day our guest was Dr. Rupesh Thopate and Dr. Ghansham Khandekar, professiona yaga teachers.







राष्ट्रीय क्रीहादिन २०२२













#### ORGANIZED INTER COLLEGIATE FOOTBALL (WOMEN) COMPETITION 2022

demic year 2022-23 Inter collegiste Football (Women) Competition organized on 31 October 2022 by Gymkhana Department. Waghire College got 3" paize.





### **Extramural Activities**





एकदिवसीय ज्येष्ठ नागरिक शिबीर





मराठी काव्य लेखन कार्यशाळा

### Ex-alumini Meet and Felicitation



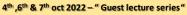
#### 1/10/ 2022 to 7/10/2022 - " World Wildlife Week Celebration "











- 1. Dr. Abhijeet Shirke
- 2. Dr. Sayyed Illiyas
- 3. Dr. Kailas Bagdane
- Competitions
- Essay Competition
- Fruit & Salad Decoration Competition
- Bouquet Making Competition
- Rangoli Competition
- Speech Competition







**Department of Botany** 

### **International Yoga Day**













### International Women's Day Celebration









#### **Department of Computer Science**

Bridge Course: (Date: 02-08-2022)



The Department of Computer Science arranged the short term Bridge Course to connect fresh Students (First Year Students) with the informative session on entire curriculum (Tour of curriculum).

Tuning With IT Industry: (Date: 06-09-2022)



The Department of Computer Science and arrange the seminar on the Recent trends in IT.

Slow-Advanced Learner's Exam: (Date: 22-08-2022)



The Department of Computer Science took Exam to find out the Slow & Advanced Students from all F.Y.B.Sc. students

Interfacing the Electronics devices : (Date: 04-10-2022)



The Department of Computer Science and Electronics arrange some newly introduced electronics kit demo practical in Electronic Lab.

### **NCC Activities**



15<sup>th</sup> August and 26<sup>th</sup> January



CPR workshop for emergency measures



**Blood Donation Camp** 

Cader Camp





Kargil and Vijay Day Celebration

### **NSS Camp**













NSS camp inauguration by Dr. D.B. Pawar

# **NSS Camp**







NSS camp inauguration by Ravindra shinapyrkar











# **Sports**

#### **INTER CLASS CRICKET COMPETITION 2022-23**



n this academic year 2022-23 some players selected in All India Inter University competit			
Sr.Na.	Name of Players	Class	Game
1	Wagh Samiksha Surykant	TrBcom	Ballbadminnton
2	Babar Siddhi Sandip	TYBBA(CA)	Ballbadm innton
3	Jagtap pratiksha Ramesh	FYBic(CS)	Ballbadm innton
4	Yadav Shivani Ramlakhan	FrBcom	Ballbadminnton
5	Shilimkar Abhishek Suresh	FrBcom	Wrestling
6	Jagtap Pratik Suryakant	MA-I (H)	Wrestling

### INTER CLASS VOLLYBALL (W) COMPETITION 2022-23



**INTER FACULTY CRICKET COMPETITION 2022-23** 





"KHEL KE TO DEKHO" Kar ke to dekho..



# Distinguish Guest Visit



# Distinguish Guest Visit



# **MOU and Linkages**



### E. Students and Teachers Achievements

# Paper and Poster presentation visit to Saifabad College, Osmania University, Hyderabad

Undergraduate and post graduate students were participated after finishing their research project assigned under DBT Star scheme. They presented their research work at the conference out of 5 students Ms. Prajkta Kulkarni and Preeti had awarded Best Poster Presentation award. Dr. Vidya Patankar presented the work which was carried oud during implementation which was also awarded with best oral presentation award at International Conference on Recent Innovation in Science and Technology-2023.







# Participation of students of undergraduate and Research students in International Symposium on Sustainable Environment and Smart Technology (10-11<sup>th</sup> March 2023)





## **Patent Registered**



### **Students Achievements**



### College Achievements









### **Achievements**







कारण स्वावस्थान के जाता है। अपने स्वावस्थान के जाता है। अपने स्वावस्थान के अपने क्षेत्र के साथ करियों की कुट के अपने किया के कुट के स्वावस्थान के अपने कुट के स्वावस्थान के अपने कुट के स्वावस्थान के





Dr. Vilas Wani elected as BOS Member and Director PDEA Sevak Sahakari Patsanstha, Pune

### **Students Achievements**

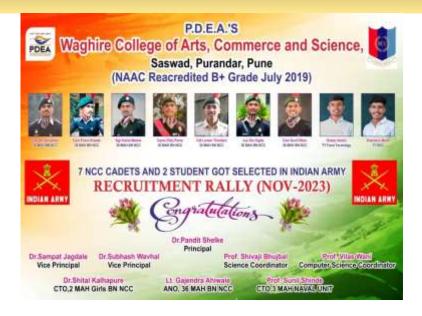






Best Sr. CATC 727 Camp 2023

### **Students Achievements**



### **Teachers Achievements**





### **Achievements**



#### F. Media Outreach







TODAY

### Media Outreach

# वाधिरे महाविद्यालयात ३२ वर्षांनी भेटले मिर





#### वाधिरे महाविद्यालवात कचरा संकलन

**त्रांत्रपद प्रदा**ः सम्बद्ध (स. कृद्धः) वेप्टेल वर्षिने व्हारित्र प्रीतारक्षीत प्रवर्तिनक प्रवर्ता संकटन वेटलः "उत्पाद व्हार ज

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पाच राष्ट्रीय छात्रांची सैन्यदलात

अभिमानास्पद् कामगिरी : सासवड येथील वाधिरे महाविद्यालयाचे यश

पुरसी

सरस्यद्रम सा. सुर्केना विद्याश्यीमं नंबाद

SUPPLEASE OF THE PROPERTY OF T

अमृत भोडमलकर

#### सासवडच्या वाघीरे महाविद्यालयार आजपासून मराठी अर्थशास्त्र परिचर

सासवड येथे आजपासून वाधिरे महाविद्यालयात

महाराष्ट्र माझा

### सासवड येथे अर्थशास्त्र परिषद ४६ वे राष्ट्रीय अधिवेशनाचा समारोप संपन्न

मराठी अर्थज्ञास्त्र परिषदेचे ४६ वे राष्ट्रीय अधिवेज्ञन

調

### मानवी, नैतिक, घटनात्मक मूल्ये जपण्याची गरज प्र-कुलगुरू पराग काळकर यांचे प्रतिपादन, वार्पीरे महाविद्यालयात मराठी अर्थशास्त्र परिषद

### अर्थकारणात मनुष्याच्या सामूहिक गरनांचा विचार

WARRY.