VPM'S B.N.BANDODKAR COLLEGE OF SCIENCE (AUTONOMOUS), THANE

The following Capacity Development and Skill Enhancement activities are organized for improving student's capabilities:

AWARWNESS OF TRENDS IN TECHNOLOGY

Sr. No	Topic
1	Introduction to google docs
2	Interactive Webinar Session on URBAN BEEKEEPING
3	Online webinar on Resume Building
4	Department of Biochemistry inaugural event of "Jeevika club" "Microbial Bioremediation"
5	Online webinar on LinkedIn essentials
6	Skill Development Scheme - Demonstration on 'Google Classroom'
7	First Pre-Conference Workshop for National Conference on 'Microbiome: The Story Untold!
8	Peer to Peer learning and teaching
9	Colloquium online lecture on Data Science -Scope and challenges
10	Five days international webinar The Art of Writing A Research Paper by Research Committee and Department of Library Day 1
11	Five days international webinar The Art of Writing A Research Paper by Research Committee and Department of Library Day 2 (Physics and IT)
12	Five days international webinar The Art of Writing A Research Paper by Research Committee and Department of Library Day 3(Chemical Science)
13	Five days international webinar The Art of Writing A Research Paper by Research Committee and Department of Library Day 4(Mathematics and Humanities)
14	Five days international webinar The Art of Writing A Research Paper by Research Committee and Department of Library Day 5(Biological Sciences)
15	Department of Biotechnology & Microbiology Online Guidance Session on Scientific Poster Making
16	Department of Biotechnology & Microbiology Online Poster Competition
17	Second pre-conference workshop "Understanding the tools of trade" for National Conference on 'Microbiome' - The Story Untold
18	National Conference on Microbiome-The story Untold!
19	Two weeks Online certificate course on Basics of R-Software
20	Workshop On Systematic Enquiry on Scientific Research by department of chemistry
21	Department of chemistry Virtual Training Program
22	Introductory mathematical methods an interdisciplinary approach

VPM's B. N. Bandodkar College of Science (Autonomous), Thane

Report of 'Introduction to Google Docs'

Date: 16th August, 2021

Name of the department conducting event: Department of Botany, VPM's B. N. Bandodkar College of Science (Autonomous), Thane

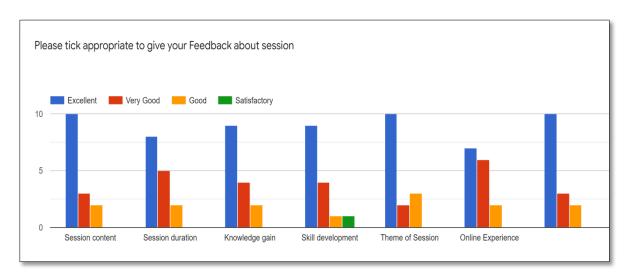
Class – S. Y. B. Sc **Number of participants** – 15 (13 Females + 2 Males) **Number of teachers -** Nil

Resource person: Dr. Snehal Bhangale, Asst. Professor, Department of Botany, VPM's B. N. Bandodkar College of Science (Autonomous), Thane

Platform: Google meet

During the pandemic all modes of communication are online. For communication with students and to submit the project, assignments which were performed in groups had to be online mode. It has been observed that although students are good at communication and knowledge of the topic but unable to write it when they have to use a computer. When students were doing the project/assignment in group writing a report is difficult due to the pandemic. Hence Dept. of Botany organized a lecture on 'Introduction to Google Doc' under Skill Development Scheme. It was conducted by Dr. Snehal Bhangale using online mode. It involved demonstration of how to use Google doc and how many people works simultaneously was shown practically and also with the help of MS-PowerPoint Presentation. Students learn how to develop and/or edit documents online, while working with others. Group members no longer have to wait for other group members to update their portion of the presentation. There is no longer the need to upload and download files multiple times or email files back and forth.

Feedback Analysis: All the students appreciated the theme and the overall feedback of this session was excellent.



Outcomes: The session was useful in improving writing skills using online platform.





VPM's B. N. Bandodkar College Of Science (Autonomous) , Thane (W)

Department of Zoology: Zoology Club

Program: Inaugural Program (Online)

Report

Particulars of the Program

Date : 18 August 2021 Time : 4 PM;

Link: https://meet.google.com/qqu-njeu-qyp

On The Occasion: Inauguration of Zoology Club: Green Force Nature Club

Subject: Urban Bee Keeping Guest Speaker: Mr. Shree Tare

Interactive Webinar Session on URBAN BEEKEEPING

The growing market for honey products has resulted in the beekeeping business as an emerging enterprise. To aware of and showcase the nutritional value of honey products, an interactive session on URBAN BEEKEEPING was organized on 18th August 21 by the Department of Zoology of B.N.Bandodkar College of Science.

Speaker Mr. Shree Tare is on a mission of awareness among the masses about various aspects of Honey Bee & its importance. His Important area of working is rescue & relocation of an urban beehive, selling original & pure honey. He emphasized beekeeping, its maintenance in the city area.



He explained that bees carry pollen from plant to plant and flower to flower in a process called pollination. Bees are responsible for pollinating nearly 85% of all food crops for humans. Beekeeping emerged as a significant business because some of the most usable products like honey, wax, and royal jelly come from bees. Several bee products like propolis and venom are used for medicinal purposes.

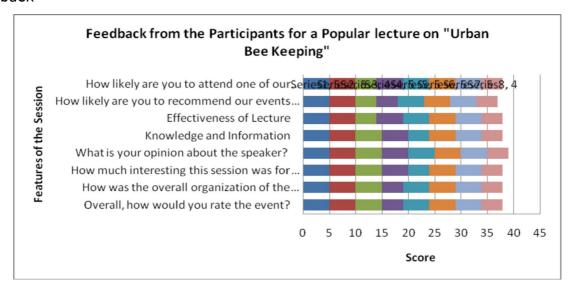
He described history and origin of Honey bees, the benefits of honey bees to human beings, various types of Honey bees, their anatomy, and their life cycle. He clearly stated the difference between ancient and modern beekeeping techniques, the enemies of bees, and their defense mechanisms. Participants appreciated his fieldwork.

He showcased the architecture of the bee box, its compartments, and the types of equipment used. He even guided on entrepreneurship on honey products. Participants were undergraduates, postgraduates, and faculty from various departments who attended the session.

Attendance

Date	PARTICIPANTS		
	Teachers	Boys	Girls
18/8/21	6	11	16

Feedback

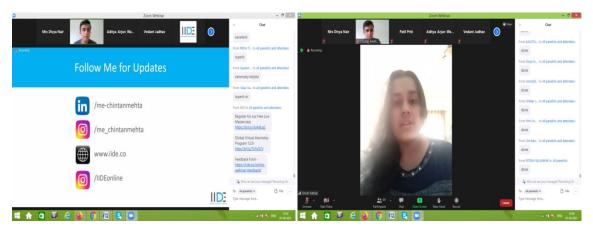


HOD, Depatment of Zoology

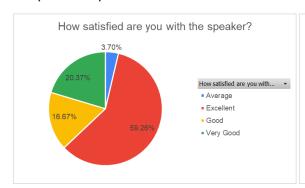
Name of activity	Online Webinar on "RESUME BUILDING"
Objectives of the activity	To understand the technique, Correct structure of the
(maximum 40 words)	resume, and to get ideas about how to make a
	professional resume. This event is organized.
Organizing department/s	Sankhya Club of Department of Statistics
Collaborative institute	IIDE (Indian Institute of Digital Education)
Date (DD/MM/YYYY)	01/09/2021
venue	Google meet and zoom meeting
Mode	Online
Details of Resource person	Mr.Chintan Mehta (strategic alliance associate at
(name, designation,	IIDE)
institution)	
Key Participants	Secretary and Joint Secretary of the Club: Ms. Shruti
	Pathak and Mr. Atharva Tikare
Remarkable outcomes/ key	Students got information about the points that should
take-away messages	be included in a resume such as how a professional
(max. three)	summary should look like.
	What keywords should be included and what details to
	avoid in the resume.
	Students understand about the all key points such as
Dotails of participants	structure, type, way, format, languageof the resume.
Details of participants Total Number	101
Outsiders	NIL
In-house	101
III-HOUSE	Faculty members: 04 students: 97
	Male: female: others:
Additional information	It was a very informative and amazing webinar,
/ taditional information	special mention of the technique while descripting
	technical and proficiency skills were explained.

Name of Coordinator/ teacher in-charge: Ms. Divya Nair

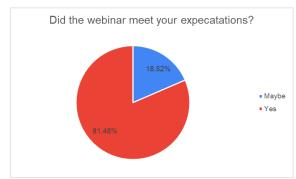
Two Geo tagged photos:

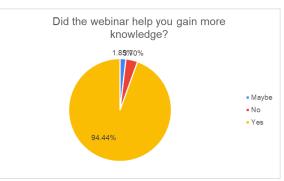


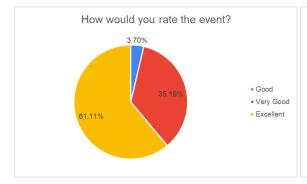
Graphical representation of feed-back:

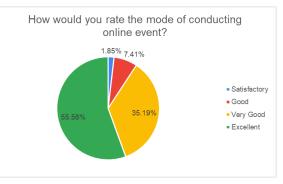












VPM's B N Bandodkar College of Science, (Autonomous) Thane Department of Biochemistry

Academic Year 2021-22

Activity Report

On the auspicious occasion of national Teachers' Day, September, 2021, Department of Biochemistry had organized inaugural event of "Jeeevika club". Dr. Utkarsha Lekhak, Assistant professor, Department of Biochemistry, Dr. Homi Baba University, Mumbai was invited as guest of honor who delivered 1ecture on "Microbial Bioremediation".

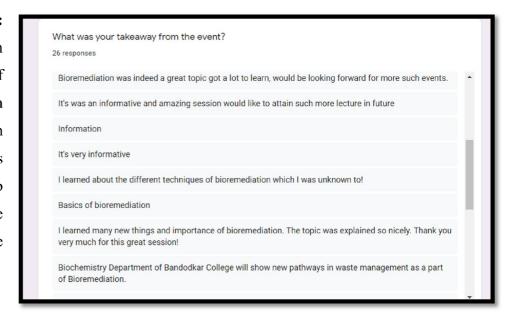


The event began with Ms. Rucha Khadke, Assistant professor from the department of Biochemistry welcoming all the participants of the event which was followed by Saraswathi Vandana. Subsequently, a video collection of all the various events previously organized by the department until past year was shown to the participants. This was followed by the inaugural speech by Principal, Dr. Moses Kolet. The event was then continued by Ms. Vrinda Santosh Raj, a second-year student of the department who introduced the chief guest Dr. Utkarsha Lekhak describing her journey as a teacher and a researcher. The event was then carried forward with Dr. Utkarsha mam's talk. During her lecture, she explained different aspects of Bioremediation starting with the basics to modern technologies that are being used today. She also explained her doctoral and post-doctoral research topics and their findings in detail with the help of various pictural and graphical representations. After the lecture a question answer session was conducted where participants asked their questions related to the topic and got them clarified.

The event concluded with a vote of thanks that was given by Ms. Bhakti Jagtap a third-year student of the department. Participants were also asked to kindly give their feedback about the event. All the participants gave a very positive and overwhelming feedback.

Outcome of the event:

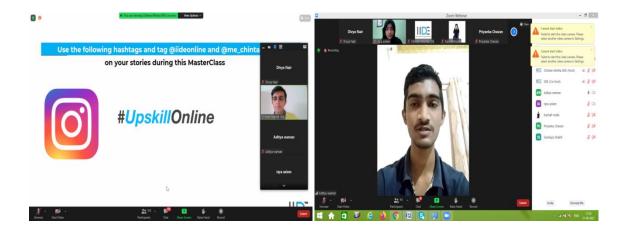
Students were able to learn the different aspects of Microbial Bioremediation in an effective way along with its practical knowledge. This is also expected to encourage them to pursue higher education in the relevant field of research.



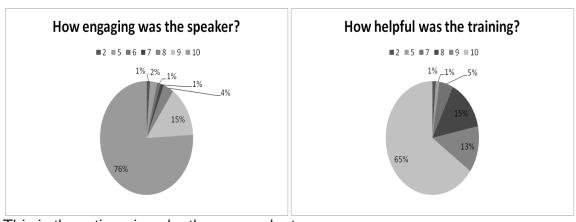
Name of activity	Online Webinar on "LinkedIn Essentials"
Objectives of the	To give important information to students, how to build a
activity	strong profile on LinkedIn and how to make a strong
(maximum 40 words)	professional network. How LinkedIn can help us find our
	dream job.
Organizing	Sankhya club of the Department of Statistics
department/s	
Collaborative institute	IIDE(Indian Institute of Digital Education)
Date	21/09/2021
(DD/MM/YYYY)	
venue	Google meet and Zoom meeting
	https://us06web.zoom.us/webinar/register/WN_rVdMCjtkSI
	KMVUnwhb3xvQ
Mode	Online
Details of Resource	Mr. Chintan Mehta
person	(strategic alliance associate at IIDE)
(name, designation,	
institution)	
Key Participants	Secretary and Joint Secretary of the Club :Ms. Shruti Pathak
	& Atharva Tikare
	Anchor's of the event: Iqra bangi & Kashaf Mulla
December 1	Saraswati Vandan: Mr. Aditya Waman.
Remarkable	Students get ideas about how we can ask help from
outcomes/ key take-	experienced people from different universities to get a job in
away messages	our dream company and many other different beneficial features of LinkedIn.
(max. three)	
	Students got information about how to build a strong profile on LinkedIn.
Details of participants	On Linkoum.
Total Number	100+
Outsiders	NIL
In-house	100+
	Faculty members: 03 students: 97 +
	Male: female: others:
Additional information	Many opportunities and ideas about the LinkedIn importance
	is given and explained how huge a platform it is.

Name of Coordinator/ teacher in-charge: Ms. Divya Nair

Two Geo tagged photos:



Graphical representation of feed-back:



This is the rating given by the respondent.

VPM's B.N.Bandodkar College of Science (Autonomous), Thane

Report of

Skill Development Scheme - Demonstration on 'Google Classroom'

Date: 25th September, 2021

Name of the department conducting event: Department of Botany, VPM's B. N. Bandodkar College of Science (Autonomous), Thane

Class – F. Y. B. Sc Number of teachers - Nil **Number of Students – 54 (Male 21 + Females 33)**

Resource person: Dr. Urmila Kumavat, Asst. Professor, Department of Botany, VPM's B. N. Bandodkar College of Science (Autonomous), Thane

Platform: Google meet

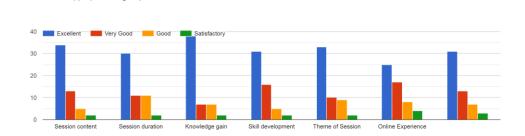
During COVID-19 lockdown period, the teaching learning process underwent a paradigm shift and by now the online learning approach is accepted by all. But still students are required to learn IT-based tools in order to enjoy an effective learning experience. Therefore the Dept. of Botany took initiative to train the F.Y.B.Sc. students about the 'Google Classroom' applications. Google Classroom serves as the best option for storing all study material in the form of MS-PPT, Notes-PDF, You-Tube links, etc. Students were given detailed online demonstrations about joining classroom/s, accessing study materials and giving class tests using links of 'Google Form' or 'Quizzes'. It was a good learning experience for them and they understood all applications and appreciated the session content.

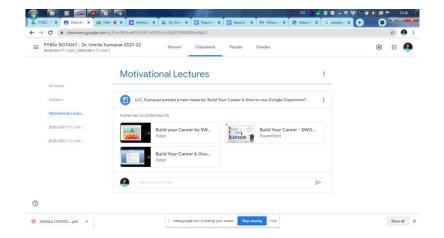
Outcomes:

Please tick appropriate to give your Feedback about session

- The session was useful in understanding 'How to operate Google Classroom?'
- They got to know about other applications such as 'Google Meet', 'Google Form' and 'Quizzes'
- The overall lecture-cm-demonstration effectively had bridged the gap between offline to online Teaching-Learning process.

Feedback Analysis: The overall feedback received for the session was excellent.





First Pre-Conference Workshop for National Conference on

'Microbiome: The Story Untold!'

Department of Biotechnology, Microbiology, Biochemistry, Botany and Interdisciplinary Science, V.P.M."s B.N. Bandodkar College of Science, Thane, had organized the first preconference workshop for National Conference on 'Microbiome: The Story Untold!' on 25th September, on online platform of Microsoft teams between 3.00-5.00 pm. Total 81 students and 12 faculty members of B. N. Bandodkar College of Science participated in the workshop. Ms. Zahera Momin, Assistant Professor, Department of Biotechnology and Microbiology, compered the event. The event began by reciting Sarasvati Vandana to worship Goddess Sarasvati.

Honorable Principal Dr. Moses Kolet, while addressing the audience, emphasized on the concept of microbiome in various fields and its significance in upcoming research work. Ms. Shruti Gudekar, student of Third Year Biotechnology introduced first speaker of the workshop, Dr. Kalpita Mulye, Head of Department of Microbiology, V.P.M.'s B.N. Bandodkar College of Science. Dr. Kalpita Mulye enlightened the students on the topic 'The Curtain Raiser'. She raised the curiosity of students in the concept of microbiome by initiating the dialogue on evolution and devolution. Various terminologies and concepts related to microbiome were made familiar to the audience. She even shed light on the significance of the microbiome in diverse fields.

The second speaker for the workshop was Dr. Jayashree Pawar, Head of Department of Biotechnology, V.P.M.'s B.N. Bandodkar College of Science, who delivered a talk on '16SrRNA gene analysis: Important tool in microbiome research'. Ms. Shruti Gudekar briefly introduced Dr. Jayashree Pawar. Dr. Jayashree Pawar initiated her talk by introducing the concept of 'The Great Plate Count Anomaly'. She made the audience cognizant about 16SrRNA gene, its significance in microbial typing, process of 16SrRNA gene based microbiome analysis. Pros & Cons of 16SrRNA gene analysis and concept of alpha & beta diversity were also weighed upon.

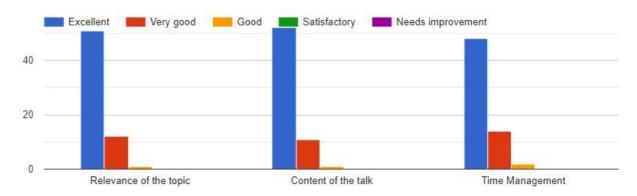
The audience were amazed with the world of Microbiome. The session has definitely trained the participants so that they are all set to swim in the vast ocean of knowledge about Microbiome to be built gradually in the upcoming second preconference workshop and national conference.

Talk was followed by a brainstorming question-answer session. Queries based on intricacies in 16SrRNA gene analysis procedure, criteria of donor selection in FMT, significance of FMT in treatment of Autism, plant related microbiome study and many more were asked.

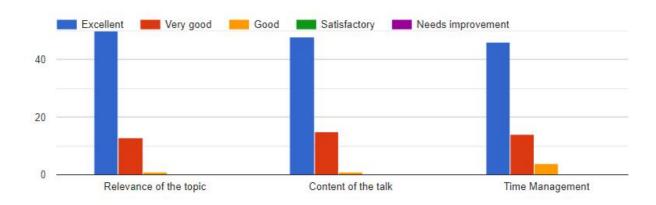
Ms. Zahera Momin gave the vote of thanks and concluded the session. Feedback of the participants was taken through google form.

Participants admired the enlightening first preconference workshop. They were also contended with the organization, technical support and time management of the event. Overall a very positive feedback was obtained from the participants for both the session.

Feedback chart for session delivered by Dr. Kalpita Mulye



Feedback chart for session delivered by Dr. Jayashree Pawar



Following are some of the comments given by the participants:

Knowledgeable workshop

Would like to attend many such session

Amazing session attend by our department greatful to be under such mentors and guides, they are just the enlightening path which are guiding us to achieve the best!! Amazingg looking forward for the grand premier that is our final session of the untold story about microbiome!!

Looking forward for more such amazing lectures

Excellent and reasearch able thoughts from the Guest regarding microbiom.

Excellent workshop. Thank you

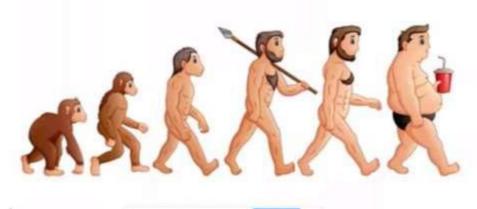
Wonderful session and very interesting knowledge been shared

16S rRNA GENE ANALYSIS: IMPORTANT TOOL IN MICROBIOME RESEARCH

Dr. Jayashree Pawar

Coordinator-Biotechnology, Department of Biotechnology and Microbiology, VPM's B. N. Bandodkar College of Science (Autonomous)

EVOLUTION / DEVOLUTION



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Day Maring

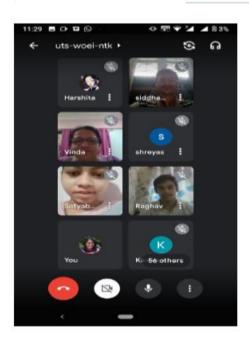
REPORT OF PEER TO PEER LEARNING Department Of Human Science

Name of activity	Peer to Peer learning and teaching
Objectives of the	To give them opportunities to interact
activity	with their peers
(maximum 40 words)	 To give them guidance regarding flyer making & google form making in the period of pandemic
Organizing department	Department of Human Science
Collaborative institute	DLLE, Interdisciplinary Science
Date	26/09/2021, Monday.
(DD/MM/YYYY)	
Venue	VPM's B.N. Bandodkar college of science, Thane.
	(Online Google Meet)
Mode	Online Mode
Details of	1. Mr. Siddhant Pradhan (Student – TYBSc HS)
Resource person	 Mr. Raghav Pedini (FYBSc - CS) Ms. Purva Pansare
(name,	4. Mr. Aryan Akash (TYBSc HS)
designation, institution)	
Key Participants	Degree students of B.N. Bandodkar college of science
Remarkable	Participants took initiative in this activity & tried
outcomes/ key	making flyer & google forms for upcoming events
take-away messages	
(max. three)	
Details of participants	

Total Number	76
Outsiders	Nil
In-house	76
Additional information	Students later reported the positive feedback about the lecture

Name of Coordinator: Dr. Vinda Manjramkar.

Teacher in-charge: Ms. Neeta More







Name of activity	Colloquium Online Lecture on "Data Science – Scope and		
	Challenges"		
Objectives of the	The Objective of the webinar is to create awareness about the		
activity	challenges and scope regarding the field and how one can pursue as		
(maximum 40 words)	a Data Scientist in future.		
Organizing	Sankhya Club of the Statistics Department		
department/s			
Collaborative institute	NIL		
Date	04/10/2021		
(DD/MM/YYYY)			
venue	Google meet		
	https://meet.google.com/uyc-hphx-ioa		
Mode	Online		
Details of Resource	Mr. Vinayak Deshpande		
person	Managing Director – Sankhya Analytical Research Pvt. Ltd India.		
(name, designation,	Partner: Sankhya Analytics, LLP UK (2016).		
institution)	Director: Medicounts Life Sciences Pvt. Ltd. (2013).		
Mary Double in and	Principal Advisor: Direxions Marketing Solutions Pvt. Ltd. (2013).		
Key Participants	Secretary and Joint Secretary of the club: MS Shruti Pathak & Atharva Tikare		
	Host of the Event:Mr. Aditiya Waman & Ms. Namrata Singh Saraswati Vandana: Mr. Vedant Jadhav		
Remarkable			
outcomes/ key take-	The Chief Guest Mr. Vinayak Deshpande introduced the students to		
away messages	the concepts of Data Science and gave valuable information on the following points.		
(max. three)	Different Roles/Designations after Graduation.		
(max. tinee)	Skill Set required to become a Data Scientist.		
	Current Status in India about Data Science.		
	Data Science Project Life Cycle.		
	Case Study & Technology used in Data Science.		
Details of participants			
Total Number	98		
Outsiders	NIL		
In-house	98		
	Faculty members: 03 students: 95		
	Male: female: others:		
Additional information	Mr. Vinayak Deshpande gave valuable information on the		
	following points.		
	Skill Set required to become a Data Scientist.		
	Programming Skills.		
	Domain Knowledge.		
	Communication/Presentation Skills.		
	Innovation, Descriptive, Predictive, Prescriptive.		
	He explained these concepts with the help of PowerPoint		
	Presentation and explained its relevance with real life examples.		

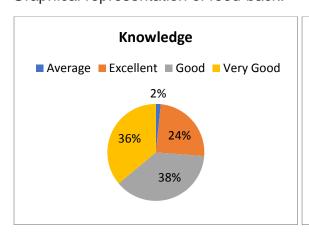
Name of Coordinator/ teacher in-charge: Ms. Divya Nair

Two Geo tagged photos:



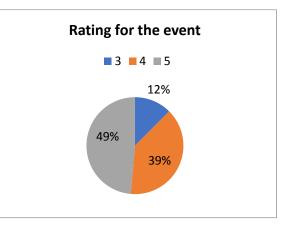


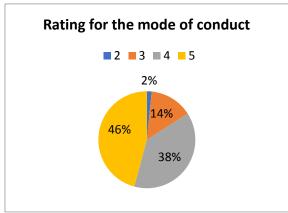
Graphical representation of feed-back:











VPM's B.N. Bandodkar College Of Science, (Autonomous) Thane.

Research Committee and Department of Library

Organized a Five Days International Webinar Series On

"The Art Of Writing A Research Paper"

Day 1: 7th October 2021

Time: 3.00 p.m. to 5.00 p.m.

Session 1: Journals: An Important Tool in Research

Session 2: MAPA- A Primary tool to start literature survey

Research Committee and Department of Library of VPM's B. N. Bandodkar College of Science, organized a Five Days International Webinar Series On "The Art Of Writing A Research Paper". The program began with National Anthem sung by Dr Ashwini Tilak, Asst Professor, Dept of Biotechnology. Then Dr M Saha, Vice Principal and Co-ordinator, Research Committee inaugurated the webinar series and expressed the ideas behind organization of this event.

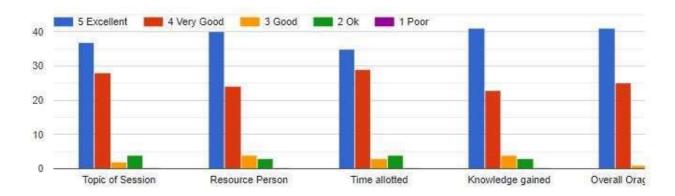
The first session of the webinar series was on "Journals: An Important Tool in Research" delivered by Mrs Kadambari Manjrekar, Librarian, VPM's B.N. Bandodkar College of Science (Autonomous), Thane. The session began with explaining what is research? In research process, Literature review plays an important role. The speaker in their session explained about how Journal articles helpful in research. She has simplified the concept of Open access journals. She practically showed various open access databases and how the search can be done in the same. She elaborated upon Springer, Taylor and Francis Journals, Cambridge University Press, J-Stor, DOAJ etc

The second session was on **MAPA: a primary tool to start literature survey** delivered by Dr. Urmila Kumavat, Asst Professor, Department of Botany, VPM's B.N.Bandodkar College of Science (Autonomous), Thane. The speaker began her talk with steps involved in research process, followed by the tools involved in the literature survey and preceded with information on abstracting journals.

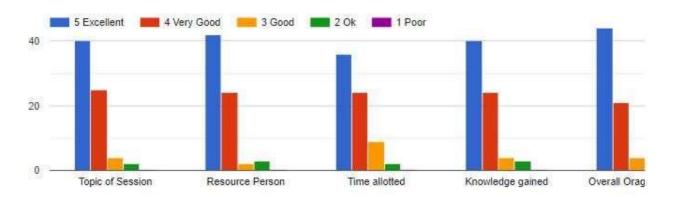
The both sessions were interactive. Webinar series was organized with the purpose of guiding students on how to write a research paper. Registration for the webinar was free. A total of 135 participants attended the webinar. The webinar was held on Microsoft Teams. After the completion of the webinar the participants filled up the feedback form and E-certificates were distributed.



Feedback Analysis: Session 1



Feedback Analysis: Session 2



VPM's B.N. Bandodkar College Of Science, (Autonomous) Thane.

Research Committee and Department of Library

Organized a Five Days International Webinar Series On

"The Art Of Writing A Research Paper"

Day 2: 8th October 2021

Time: 3.00 p.m. to 5.00 p.m.

Session 1: The Art of Writing a Research Paper in Physics

Session 2: The Art of Writing a Research Paper in Information Technology

The second day of the Five Days International Webinar Series on "The Art of Writing A Research Paper" was on 8th October 2021. The session was initiated by Dr. Ujjwala B. Gokhe with the welcome address.

The title of the first session was the art of writing a research paper in Physics. The guest speaker for the session was Dr. Vijay Mayekar, an Associate Professor and Head of Physics department of Ramanarain Ruia College, Matunga. He is also visiting faculty for the MSc course in Physics at various colleges. He has his expertise in Microcontrollers, Textiles, wireless sensor network. He was introduced in the session by TY BSc student Ms. Laxmi Parmar.

Dr. Vijay Mayekar Sir had started his lecture with the general outline of research paper and then he explained the possibilities of various kinds of research papers in Physics. He emphasized the research specific to MSc Electronics through the projects. With the help of case study, he has explained each and every step to be followed during experiments, while making a good research paper and also while selection of a journal and publication of the paper in CARE list. The session was concluded with question-answers and proposal of vote of thanks by Mr. Abhishek Dani.

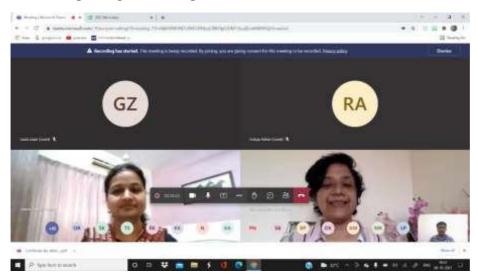
Session II

The title of the second session was the art of writing research paper in Information Technology. The guest speaker for this session was Dr. Hiren Dand, Co-ordinator of the department of Information Technology at Mulund College of Commerce. He is also an adjunct professor and guide at Shri JJT University, Rajastan. Dr. Hiren Dand has his expertise in the subject of Increasing Efficiency of Mobile phones by offloading tasks to cloud. He was introduced in the session by TY BSc student Ms Rutuja Adhav.

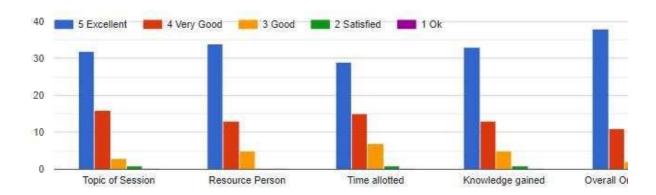
Dr. Hiren Dand began the lecture with basic idea of perception of research. He had explained an assortment of research problem and the steps of action research. He had also elaborated on the analysis of problem with the help of schematic diagram. At the end he had briefed on how

to write a research proposal or synopsis. The session was concluded with question-answers and proposal of vote of the thanks by Mr. Abhishek Dani.

. Total 81 participants were present for the event.



Feedback Analysis: Session 1



Feedback Analysis: Session 2



VPM's B.N. Bandodkar College Of Science, (Autonomous) Thane.

Research Committee and Department of Library

Organized a Five Days International Webinar Series On

"The Art Of Writing A Research Paper"

Day 3: 9th October 2021

Time: 3.00 p.m. to 5.00 p.m.

Session 1: The Art of Writing a Research Paper in Chemical Sciences

The third day of the Five Days International Webinar Series on "The Art of Writing A Research Paper" was on 9th October 2021. The session was initiated by Dr. Sandeep Kahandal with the welcome address.

Dr. Dinesh Sawant, Scientist at National Chemical Laboratory(NCL-CSIR) and Assistant Professor at AcSIR was invited as a speaker for chemistry subject. The session started with an introduction of the speaker, his research work includes catalysis for energy, catalyst development for dehydration reaction under the supervision of ChemistryNobel Laureate, Prof. Dr. Ryoji Noyori. Sir, has received an honorary position as DAAD Germany Research Ambassador for India. This talk aimed to expose participants to how to write a research paper in chemical sciences.

Dr. Dinesh Sawant has explained how to write a research paper scientifically through his presentation and also explained theimportance of a research paper for writing anacademic book. The talk describes the purpose of a scientific paper, including a very nice explanation for different aspects of writing a paper such as content, introduction, tables and figures, literature, discussion, identification of the best journal and publisher, first draft, and submitting a draft to supervisor.

Sir has explained the organization and importance of the title of the paper as it helps the reader to understand the research work, also explained the proper sequence of writing the research paper and the importance of supporting information. Tenprimary points were discussed by the speaker to make the paper attractive such as outline, basic grammar, and spelling, writing should

be in flow and resonate, captions for tables, focus on ideas and relevance of that paper, results, and take editorial comments seriously.Later on in his lecture, he proceeded to explain some useful software's like Chemdraw, Scifinder, Reaxys, Scopus, iThenticate and demonstrated the use of Scifinder and iThenticate. This session had become very interactive as all the faculty and students actively participated. Students also asked various questions and sir cleared all the doubts by giving simple examples.

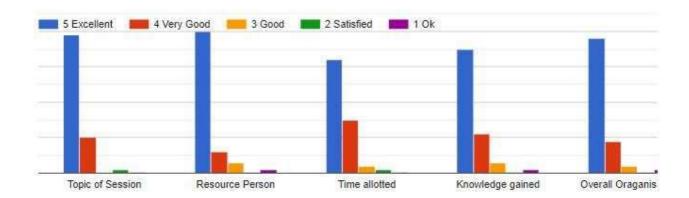
The purpose of the lecture was well served as the students were thrilled with this new knowledge and participated actively in the lecture. A total of 95 participants were present in the session. The objective of this lecture was accomplished as students found this lecture very informative which will be helpful in the future.





Interaction of speaker with the audience in the International Webinar series on Chemical Sciences

Feedback Analysis:



VPM's B.N. Bandodkar College Of Science, (Autonomous) Thane.

Research Committee and Department of Library

Organized a Five Days International Webinar Series On

"The Art Of Writing A Research Paper"

Day 4: 11th October 2021

Time: 3.00 p.m. to 5.00 p.m.

Session 1: The Art of Writing a Research Paper in Mathematics

Session 2: The Art of Writing a Research Paper in Humanities and Social Sciences

The fourth day of the Five Days International Webinar Series on "The Art of Writing A Research Paper" was on 11th October 2021. The session was initiated by Mrs Minal Wankhede, Head, Department of Mathematics with the welcome address.

On the day 4 of the five days international webinar series organized by Department of Library and Research Committee, Dr. Shripad Garge (Asst. Prof., IIT Bombay) was the guest speaker. The topic of the session was "The Art of Writing a Research Paper in Mathematics". Mrs. M. T. Wankhede (Head, Department of Mathematics) welcomed and addressed the gathering and Mr. Saurabh Singh (T.Y.B.Sc. Mathematics) introduced the chief guest.

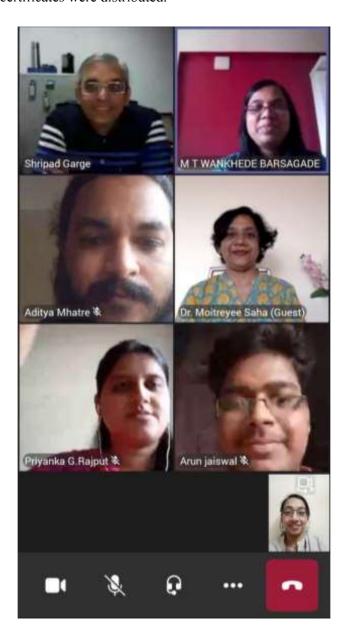
Dr. Shripad Garge started his talk by emphasizing that the art of research cannot be compartmentalized. The art of research in Mathematics and other fields have common points and the most basic being the art of asking "good" questions. According to Dr. Garge, it is a good question only which will complete the "quest". He stated that, asking questions can perhaps be traced all the way back to Socrates.

Dr. Garge explained the eight-fold way of asking good questions inspired from Socrates. The "Socratic" way being S – Survey, O – Observation, C – Conjecture, R – Reinterpret, A – Analogy, T – Transfer, I – Induction and C – Converse. He explained in detail how these eight ways of asking good questions will help in doing research in Mathematics. He gave various examples of mathematical as well as non-mathematical background to support each of these eight approaches. He described various interesting historical events to explain this Socratic way.

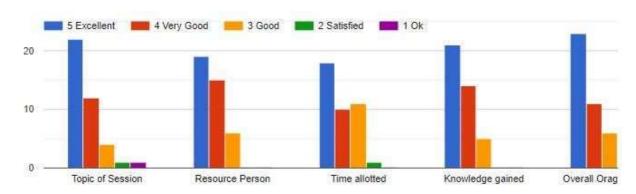
The session ended with formal vote of thanks presented by Mrs. Priyanka Rajput (Asst. Prof, Department of Mathematics).

Webinar series was organized with the purpose of guiding students on how to write a research paper in humanities and social sciences. In the today's session sir began with discipline of humanities & social sciences. Followed by this significant factors of research writings were discussed in detail .Along with this a brief introduction on common mistakes in manuscripts was given. Sir also mentioned the importance of structure of research.

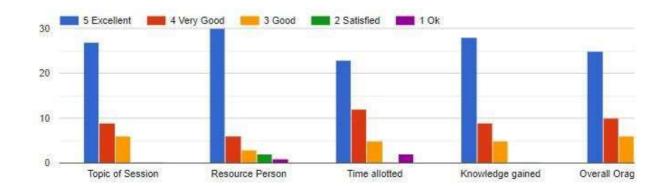
Registration for the webinar was free. A total of 70 participants attended the webinar. The webinar was held on Microsoft Teams. After the informative session from the sir, Question- answer session was conducted. Then after the completion of the webinar the participants filled up the feedback form and E-certificates were distributed.



Feedback Analysis: Session 1



Feedback Analysis: Session 1



VPM's B.N. Bandodkar College Of Science, (Autonomous) Thane.

Research Committee and Department of Library

Organized a Five Days International Webinar Series On

"The Art Of Writing A Research

Paper"

Day 5: 12th October 2021

Time: 3.00 p.m. to 5.00 p.m.

Session 1: The Art of Writing a Research Paper in Biological Sciences

Session 2: Writing a Research Paper as per Journal Requisites in Biological Sciences

Total number of Participants – 29 (25 Females + 04 Males)

Number of Faculty participants - 07

Number of Student participants - 22

Number of Participants from abroad - 01

Platform: Microsoft teams

The fifth day of the Five Days International Webinar Series on "The Art of Writing A Research Paper" was on 12th October 2021. The session was initiated by Ms Aishwarya Deshmukh, Asst Professor, Dept of Botany.

The aim of the webinar series was to introduce the students and aspiring research enthusiasts to the ever expanding world of scientific research. Every webinar lecture was dedicated to different research avenues viz. Databases, Physics, Information technology, Chemistry, Mathematics and Social Sciences; and were conducted by speakers belonging from renowned institutions.

As part of the 5-day webinar series, on 12th October, 2021, the session titled "The Art Of Writing A Research Paper In Biological Science" was attributed to research in the field of Biology. The session was hosted by Ms. Aishwarya Deshmukh, Asst. Prof. at Botany department, and the speaker was briefly introduced by Ms. Shruti Koli, student of S.Y.B.Sc. Botany. Dr. Urmila Kumavat, who is the Co-ordinator for Research Scholars Program, as well as Assistant Professor at Department of Botany, B. N. Bandodkar College of Science was the resource person for the session. Dr. Kumavat's session provided a step by step in depth analysis about the usual dos' & don'ts while preparing & writing a typical research article, and supported examples from bioscientific papers. Following a brief & intriguing Q &

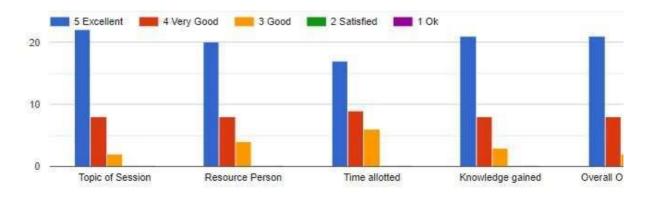
A session, a formal vote of thanks was proposed by Ms. Priya Singh, fellow faculty member of Botany Department.

The session fulfilled its purpose of providing budding researchers a beginners' guide to writing scientific literature. Overall, the choice of resource person, topic of presentation, and organization as a whole was praised and garnered positive responses from the attending dignitaries and participants.





Feedback Analysis: Session 1



Feedback Analysis: Session 1



VPM's B N Bandodkar College of Science (Autonomous)

Department of Biotechnology & Microbiology

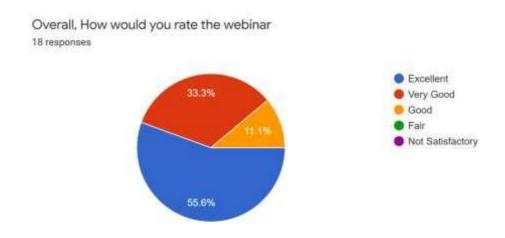
Online Guidance Session on Scientific Poster Making

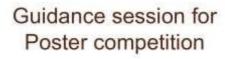
Activity Report

Departments of Biotechnology, Microbiology, Biochemistry, Botany, Human Science & Interdisciplinary Science, in collaboration with Mycological Society of India, Mumbai Unit, are organizing National conference on 'Microbime: The Story Untold' on 7th and 8th of Januray, 2022. As a part of this conference, to better orient the students towards the subject, a poster presentation competition has also been organized on 9th December 2021. Many students, especially the first year students, were unaware of 'Scientific Poster Making'; and requested the teachers to throw light on the same. A special online 'Guidance Session on Scientific Poster Making' (google meet platform) was hence organized by the Department of Biotechnology & Microbiology on 23rd November 2021 at 2 pm.

Dr. Ashwini Tilak and Ms. Purvi Shah, faculty, Department of Biotechnology & Microbiology, were the resource persons for the event. Dr. Ashwini started with explanation on 'what a scientific poster is' and went ahead elaborating difference between a research article and a review article. She discussed the sequence of Introduction, Methods, Results, and Discussion in a research article, giving suitable examples. She then explained how to incorporate these sections in a poster with dos and don't s to be followed. Ms. Purvi then took over the session with actual demonstration of poster making in a power point template. She ended the talk by giving some valuable tips for the task. Lot many queries asked by the participants were then discussed by the speakers. Dr. Kalpita Mulye, coordinator, Microbiology and Dr. Jayashree Pawar, coordinator, Biotechnology, motivated the students to participate in large numbers and mentioned that all the staff members would help them whenever needed, right from selection of research article for making poster.

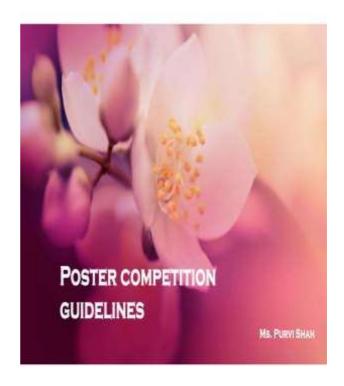
31 students and 8 staff members of Biotechnology, Microbiology & Biochemistry Department attended the session. Students feedback on a five-point scale indicated that 11% students rated the activity as 'good', 33% students as 'very good', while 56 % rated it to be 'excellent'.





Dr. Ashwini Tilak

23th November 2021



VPM's B N Bandodkar College of Science (Autonomous)

Department of Biotechnology & Microbiology

Online Poster competition

Activity Report

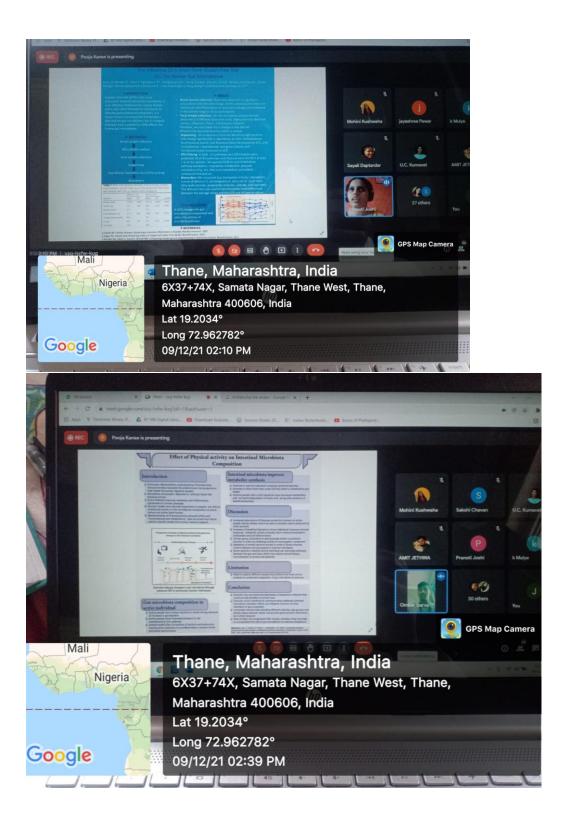
Online Poster competition was organised for national conference on Microbiome: The story untold on 09th of December 2021 on google meet platform. A guidance session for poster making was held for the undergraduate students on 23rd November, 2021 by faculty members - Dr. Ashwini Tilak and Ms. Purvi Shah. Total 21 registrations were received under three categories namely; Category 1- undergraduate students, Category 2- Masters students and Category 3- Ph.D. / Faculty/ Industrial personnel. Registration for poster competition was received from nine different institutions including our own college. A scrutiny committee (members- Ms. Sayali Daptardar, Ms. Zahera Momin and Mrs. Rucha Khadke) selected 16 relevant posters for final presentation.

The poster presentation was divided into two sessions; morning and evening, with 8 participants judged by two judges; one internal and one external judge, in each session. The morning session commenced at 10 am followed by an evening session at 2 pm. Through a blindfolded marking system was implemented, where identity of the participants was not revealed to the judges.

Ms. Mohini Khushwaha hosted the event. The event started with a welcome address by principal Dr. Moses Kolet, who also paid homage to Gen. Bipin Rawat and the brave souls that lost their lives in the unfortunate mishap. Dr. Jayashree Pawar, In-charge, Biotechnology then threw some light on the various activities conducted under the National conference Microbiome-The story Untold to be held on 7th and 8th Jan, 2021. Ms. Mohini Khushwaha Introduced the judges Dr. Abhishek Mule, Field Application specialist, Eppendorf, India and Dr. Urmila Kumavat, Assistant professor Botany, B. N. Bandodkar College of Science. She then reminded the participants about the rules of the competition. Each student was given 7min time to present his/ her poster followed by a few questions asked by the judges. A massive audience of 125 viewers were present at the event. At the end of all the 8 presentations for the morning session, judges, Dr. Abhishek mule and Dr. Urmila Kumavat appreciated the effort of the committee in organising such an event and appreciated the students for their participation. Both the judges insisted on going the natural way. Dr. Urmila Kumavat mentioned the marking system to all the participants. The session was concluded by a formal vote of thanks by Dr. Kalpita Mulye, In-charge Microbiology, B.N.Bandodkar college of Science.

The afternoon session began sharp at 14hours and started by welcoming everyone and introducing the judges Mr. Amit Jethwa, Assistant Professor, Biotechnology, K.J.Somaiya college of Science and commerce and Dr. Urmila Kumavat, Assistant professor, B.N. Bandodkar college of science. Dr. Jayashree Pawar, In-charge biotechnology, B.N. Bandodkar college of science gave a brief introduction about the conference and the various events held under it. Rules of the poster competition were recalled for all the participants followed by poster presentation of the all the 8 participants. After completion of the all the poster presentations, judges Mr Amit Jethwa and Dr. Urmila Kumavat appreciated the efforts of the students in presenting on very diverse topics and urged the students to participate in such competition

irrespective of the results. Formal vote of thanks was proposed by Dr. Kalpita Mulye, In-charge Microbiology, B.N.Bandodkar college of Science.



VPM's B N Bandodkar College of Science, (Autonomous) Thane

NATIONAL CONFERENCE ON 'MICROBIOME' - THE STORY UNTOLD (2021-2022)

Report of Second Pre-conference Workshop "Understanding the tools of trade"

Departments of Biotechnology, Microbiology, Biochemistry, Botany, Human Science and Interdisciplinary science V.P.M."s B.N. Bandodkar College of Science, Thane, had organized the **second pre-conference workshop** "Understanding the tools of trade" for National Conference on 'Microbiome' - The Story Untold on 10th and 11th December 2021.

The pre-conference workshop was organised with an aim to enable the student to prepare for the conference and equip them with basic understanding of techniques. The Second pre-conference workshop had 3 sessions –

- Session I Unravel the DNA sequence by Ms Purvi Shah. 10th December 2021, 3.00-5.00pm
- Session II- Essential Bioinformatics by Ms Ashwini Tilak. 11th December 2021, 11.00-1.00pm
- Session III- Essential Bioinformatics by Ms Judith Talker. 11th December 2021, 3.00-5.00pm

Ms. Mitali Chinaakar, Assistant Professor, Department of Biochemistry, compered the event. The event began with welcome by Ms Mitali Chinaakar followed by the Sarasvati Vandana. After the welcome address Dr. Moses Kolet, Principal, V.P.M."s B.N. Bandodkar College of Science, Thane gave his introductory remarks. Sir welcome the participants and gave best wishes to the organising committee for smooth conduction of the event. He also highlighted the importance of these preparatory sessions and motivated students to participate in large numbers.

Dr. Jayeshree Pawar, Organising Secretary briefly explained the conceptualization of the National Conference. Later she elaborated on various themes and gave an overview of all the activities that were organised till date under the umbrella of Microbiome- the Story Untold. Madam mentioned about the Logo Competition, Poster Competition and First Pre conference Workshop.

The first session of workshop 'Unravel the DNA sequence' was taken by Ms Purvi Shah, Assistant Professor Department of Biotechnology and Microbiology. This session began with Introduction of Ms Purvi Shah by Mr Omkar Barve, a TY biotechnology student.

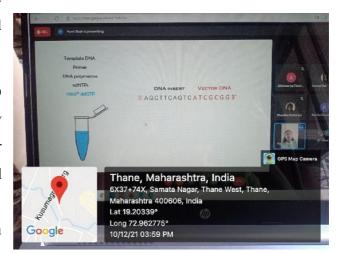
In this session Ms. Purvi explained about the Central Dogma of molecular biology and importance of sequencing 16s rRNA gene in



Microbes. She elaborated on the use 16S rRNA gene sequencing is as a tool to identify bacteria at the species level and assist with differentiating between closely related bacterial species. An overview of a timeline on the study of DNA was discussed. She elaborated on the various DNA sequencing methods that are available and continued her session with detailed explanation of the Sanger Sequencing method for understanding the sequence of DNA. Automated DNA sequencing as a Modification of Sanger sequencing which utilizes a fluorescent dye to label the nucleotides instead of a radioactive isotope was briefly explained. Ms Puri Shah mentioned that Next-Generation Sequencing (NGS) of 16S rRNA gene is now one of the most widely used application to investigate the microbiota. She explained the techniques of Illumina sequencing technology, sequencing by synthesis (SBS), which are widely adopted next-generation sequencing (NGS) technology worldwide. This session

concluded with interaction with the participants. 112 Participants attended the session.

The second session of workshop "Essential bioinformatics "was taken by Ms. Ashwini Tilak, Assistant Professor Department of Biotechnology and Microbiology on 11th December 2021 from 11.00am to 1.00 pm. The session began with formal introduction of madam



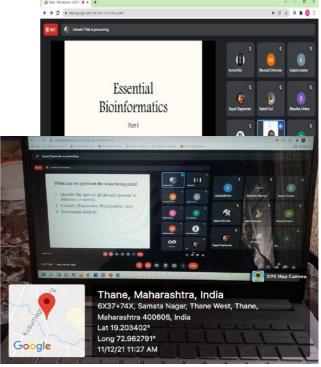
by Ms Komal Rai, TY Biotechnology student.

Ms Ashwini Tilak explained the broad concept of bioinformatics and need for amalgamation of wet lab techniques and virtual tools of data assessment. She mentioned various tools that are widely used today for data analysis. She emphasized on the need to analyse data with more precision and fastness. Madam demonstrated the use of **Basic Local Alignment Search Tool (BLAST)** in nucleotide and protein sequencing. She explained that The Basic Local Alignment Search Tool (BLAST) finds regions of local similarity between sequences. The program compares nucleotide or protein sequences to sequence databases and calculates the



statistical significance of matches. Ms Ashwini Tilak stepwise guided the participants to perform sequence alignment and analyse the results. This session concluded with interaction with the participants. 90 Participants attended the session.

The third session of workshop "Essential bioinformatics "was taken by Ms. Judith Talker, Assistant Professor Department of Biotechnology and Microbiology on 11th December 2021 from 3.00pm to 5.00 pm. The session began with formal introduction of madam by Ms Sayali Malvankar, TY Biotechnology student.



Ms Judith Talker focused on Phylogenetic Analysis in the talk. She introduced the participants with concept of phylogenetic as the study of the evolutionary development of a species or a group of organisms or a particular characteristic of an organism. Taking recent example of Covid Outbreak, madam uncovered an otherwise difficult topic with very easy and relatable example. She demonstrated the use of Molecular Evolutionary Genetics Analysis (MEGA) computer software for conducting statistical analysis of molecular

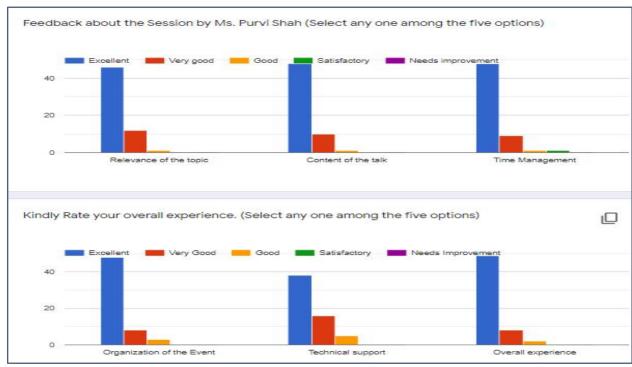
evolution and for constructing phylogenetic trees. This session concluded with interaction with the participants. **98 Participants attended the session.**

The two-day pre conference workshop concluded by vote of thanks and concluding remarks from Dr. Kalpita Muley, Organising Secretary.



FEEDBACK ANALYSIS-

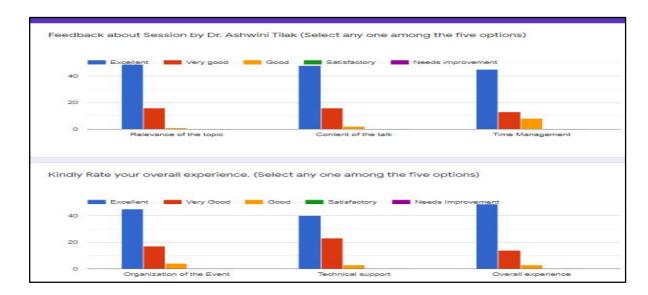
85% Females and 15% males attended the session. Participants found the overall organisation of the sessions excellent.

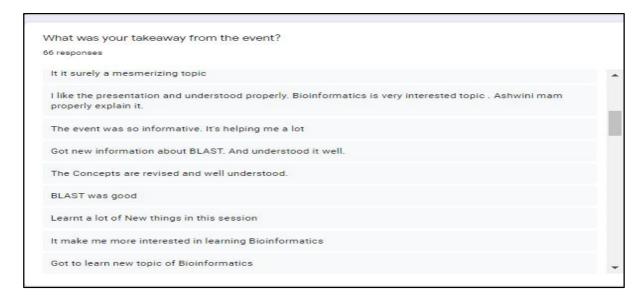


SESSION I

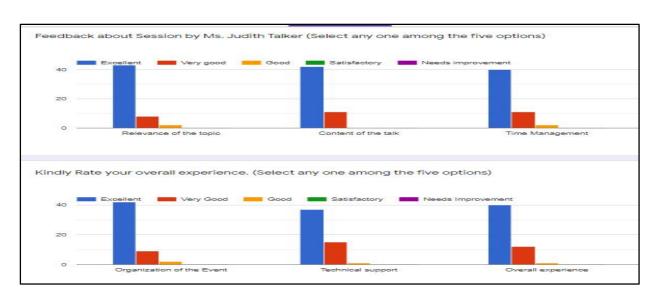


SESSION II





SESSION III



OUTCOME OF THE EVENT-

The speakers introduced the participants to various aspects in the field of MICROBIOME. The main purpose of the pre-conference workshop was to bridge the knowledge gap of students between the theoretical aspects and the current research / industry practices and preparing them for the actual conference. All three speakers from their respective fields



added valuable insights to the topic at hand and answered questions posted by participants making it more interactive and fruitful for all students. Overall, the pre-conference workshop achieved its intended results and was a success.

National Conference on Microbiome-The story Untold!

Date: 07th - 8th Jan, 2022

The National conference 'Microbiome-The story Untold!' was organised in collaboration with Mycological Society of India, Mumbai unit on 7th and 8th January, 2022, to explore the world of microbiome. Department of Biotechnology and Microbiology, Biochemistry, Human science, Botany and Interdisciplinary Science were the host departments.

Day 1 commenced at 10am. The morning session was hosted by Ms. Meetali Chinnkar, Assistant Professor, Department of Biochemistry. As per the Indian tradition, the conference was inaugurated by lighting the lamp and Saraswati Vandana. Convener of the conference, Dr. Moses Kolet formally welcomed the guests and participants for the Two-day National conference. Organising Secretary, Dr. Jayashree Pawar gave a glimpse of all the activities conducted prior to the Conference. She apprised the audience about the logo competition, poster competition and the two pre- conference workshops conducted by the Department of Biotechnology and Microbiology for acquainting the students to the subject of Microbiome. The proceedings of the conference was officially inaugurated by Dr. Yogesh Shouche.

Keynote speaker of the conference was Dr. Yogesh Shouche, Emeritus scientist NCCS, Pune. He gave insights on the Indian perspective of human Microbiome. He demonstrated how the microbiome diversity varies with diet, age, gender and the shift in Firmicutes/ Bacteroidetes ratio with age, through the comparative studies conducted by his team. He touched upon various aspects of microbiome, and its association with human health suggesting that gut microbiome can be manipulated by changing the diet pattern which in turn may influence the disease condition.

Session II was conducted by Dr. Ashwin Kotnis, Associate professor, Department of Biochemistry, AIIMS, Bhopal. He emphasised on how microbial dysbiosis is responsible for ageing, and wound healing. He discussed the significance of skin microbiome in different dermatological disorders like vitiligo, atopic dermatitis and psoriasis.

Session III was conducted by Dr. Naveen Arora from Department of Environmental Science, Babasaheb Bhimrao Ambedkar University, Lucknow. He demonstrated the role of plant growth promoting Rhizobacteria (PGPRs) in plant growth and management of phytopathogens and plant disease. He presented several studies showing application of PGPR in bioremediation of saline soils in UP. This concluded the morning session.

The afternoon session was hosted by Ms. Rucha Khadke, Assistant Professor, Department of Biochemistry. The first talk which commenced at 2:30 pm and was delivered by Mr. Vishnu Prassodanan PK, a research scholar working under the guidance of Dr. Vineet Sharma. His study revealed the landscape of *Prevotella* species composition in the human gut microbiome and its impact on health in western and non-western population.

The last session of the day was conducted by Dr. Anil Kumar from Gene regulation laboratory, NII. His talk emphasized on the application of microbiome derived metabolites in prognosis and diagnosis of diseases. He also presented the work done in his lab for developing electrochemical/

optical sensor to detect a microbiota- derived metabolite TMAO (Trimethlyamine N-oxide) which has been implicated as a biomarker in several types of cancers.

Each of the speakers were introduced by students. The conference was attended by 142 participants including students, faculty of the college, research scholars and delegates from other institutions. Every talk was followed by an elaborate question & answer session. The day 1 received enthusiastic response from the participants.

On 8th January 2022, morning session started with a short video of selected posters which were presented on 9th December 2021, as a part of poster presentation competition. Session moved ahead with oral presentations. There were three oral presentations in this session.

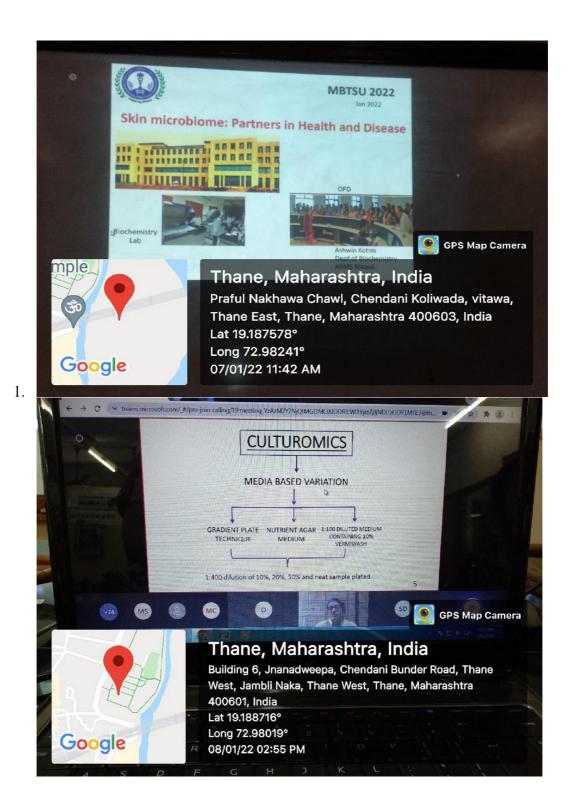
It was then followed by a talk- delivered by Dr. Shilpa Verekar; HOD, CQA, Laboratory Parle Agro Pvt. Ltd. Her topic of presentation was "Mycoflora of keratin enriched soil". She explained about distribution of keratinophilic fungi in Indian soil, Characterization of fungi, Screening of fungi for bioactive metabolites. The lecture was full of knowledge and she answered all the questions of students by giving examples of day-to-day life.

In afternoon session, remaining three oral presentations were conducted followed by valedictory Function. The oral presentations of both the sessions were Judged by Dr. Ashwin Kotnis Associate Professor, Dept. of Biochemistry, AIIMS Bhopal and Dr. Lolly Jain Vice principal, K.J. Somaiya College of Science and commerce, Vidyavihar Mumbai. After presentations were over, both the judges guided them for better presentation in future.

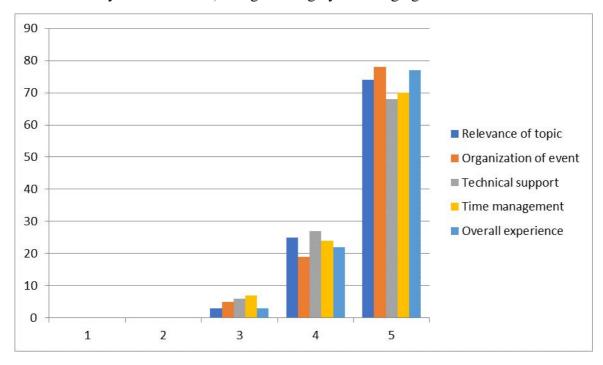
The valedictory session of the Conference was delivered by Eminent Speaker Dr. Hemant Purohit former Head, Environmental Biotechnology, Genomics Division, NEERI, CSIR (Nagpur). His topic of presentation was "Microbiome: An unexpected wealth". He talked on Metagenomics approach, Exploration of microbial diversity and its utilization in different domains of human welfare during his lecture. His lecture ended with an extensive question answer session.

In the valedictory session, results for best poster and Oral presentations were announced. A wonderful presentation was made to make the gathering know these winners. Participants were then requested for their verbal feedback about the two days of the conference. The feedback was given by Dr. (Mr.) Ramjan Mulani and Dr. Damle (former Head of Microbiology Department, Somaiya college). Mr. Ashwin das (student of second year) also shared his experience during feedback session. In the concluding speech Dr. Moses Kolet, Principal and Convener of the conference, expressed his gratitude for all those who made the event successful. Following the standard protocol of the college, he also announced the next conference -that is going to get hosted by Department of Mathematics and Statistics. Total 89 feedbacks were received from participants through Google form.

Finally, the conference was concluded with a formal vote of thanks by Dr. (Mrs.) Kalpita Mulye, Organizing Secretary, Coordinator Department of Microbiology, followed by invoking Pasaydan.

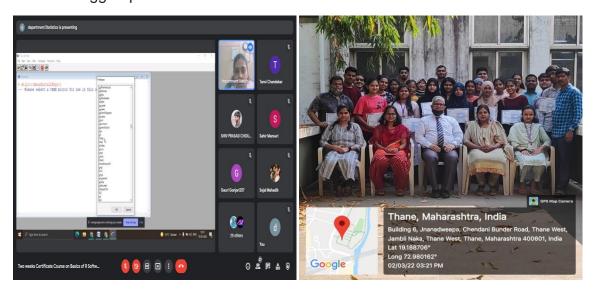


Participants from all over Maharashtra, VPM's B. N. Bandodkar College of Science Autonomous), Thane; MIT ADT University, Pune; R.J. College of Arts, Science and Commerce, Mumbai; R K Talreja College, Ulhasnagar; K.M.E.Society's G.M.Momin Women's College, Bhivandi; Swami Ramanand Teerth Marathwada University, Nanded; School of Life Sciences, Swami Ramanand Teerth Marathwada University, Nanded attended the conference. The participants gave feedback on five-point scale (1: Satisfactory & 5: Excellent) along with highly encouraging comments.

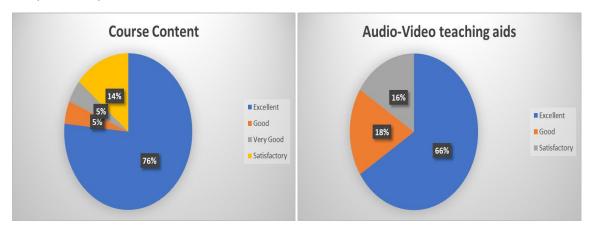


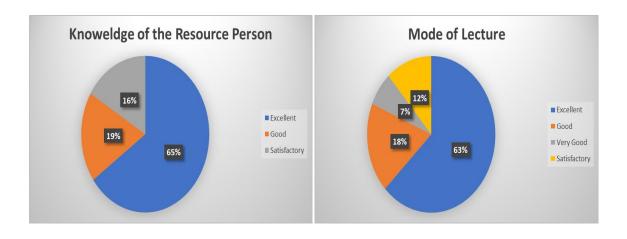
Name of activity	Two Weeks Online Certificate Course on "BASICS OF R SOFTWARE"
Objectives of the activity (maximum 40 words)	 To familiarize Students with basic regular expressions in R. To impart knowledge about creating charts, plots and vectors and basic data analysis procedures. To understand the multiple regression models and procedure to perform all conventional statistical models and analysis tests. To develop hands-on experience on solving problems
	related to real-life data
Organizing department/s	Department of Statistics Sankhya Club
Collaborative institute	NIL
Date	08/02/2022 to 24/02/2022
(DD/MM/YYYY)	
venue	Two weeks Certificate Course on Basics of R Software- Lectures February 8, 2022, 1:00pm – February 24, 2022, 4:00pm Google Meet joining info Video call link: https://meet.google.com/dzb-ehbv-xek
Mode	Online
Details of Resource person (name, designation, institution)	Ms. Sumaiya A. Shaikh (I/C Head, Assistant Professor, BNB) Ms. Priyanka M.Chavan (Assistant Professor, BNB) Ms. Vaishali J. Deshmukh (Assistant Professor, BNB) Ms. Saba pangarkar (Assistant Professor, BNB)
Key Participants	Ms. Sumaiya A. Shaikh Ms. Priyanka M.Chavan Ms. Vaishali J. Deshmukh Ms. Saba pangarkar
Remarkable outcomes/ key take-away messages (max. three)	Students will be able to edit and save changes in existing data. Summarise and graphically display data. Perform all conventional statistical analysis tests. Read existing datasets into R or create new ones. Handle any form of data.
Details of participants	
Total Number	48
Outsiders	5
In-house	39
	Faculty members: 04 students: 44
	Male: - female: - others: -
Additional information	We have introduced to students some additional command and some new packages which are not mentioned in the syllabus

Name of Coordinator/ teacher in-charge: Ms. Sumaiya Shaikh Two Geotagged photos:

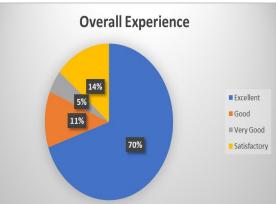


Graphical representation of feed-back:









VPM'S B.N.BANDODKAR COLLEGE OF SCIENCE, THANE (AUTONOMOUS) DEPARTMENT OF CHEMISTRY

Report Of Workshop On Systematic Enquiry On Scientific Research

Department: Chemistry **Day**: Tuesday, Saturday, Monday **Date**: 8th, 12th & 14th February 2022

Time: 2:00pm-3:30pm Mode of activity: Online mode

Name of activity: Workshop on systematic enquiry on scientific research

Resource person- Dr. Rohini Mandhare, Dr. Amol Jadhav, Dr. Pralhad Wagh

Assistant professor, Dept. Chemistry, VPM's B.N.Bandodkar College of Science, (Autonomous), Thane

The Department of Chemistry organized a workshop on "Systematic *enquiry on Scientific Research*" to inculcate scientific research aptitude among the T.Y.B.Sc and M.Sc. Chemistry students. Research aptitude creates the reliable and authentic knowledge hub among the Students. Hence, the workshop aimed at shaping young minds of graduates and undergraduates towards the composition of research paper and a scientific approach towards it.

Workshop comprises 3 sessions. All session was started with welcome address by HOD.

The First session was conducted on **08/02/2022 by Dr. Rohini Mandhare**. The topic of first day was "Writing of Effective Research Proposal" Madam introduced concept of research proposal, need for writing research proposal and use thereof, She explained various types of research proposal such as funding ,non-funding , training based proposal, different key elements of proposal. She further elaborated each key elements required for writing research proposal. Before summering topic she gave important tips for effectiveness of proposal. Total 43 students participated in workshop along with 4 teachers.

The second session conducted on 12/02/2022 by Dr. Amol Jadhav. The topic of his talk was "Systematic Writing of Research Manuscript". Sir explained the differences between writing research manuscript and report. Given key points for writing research manuscript. Manuscript writing is depends on the journal requirement and instruction to the authors hence he also explained different types of research journal.

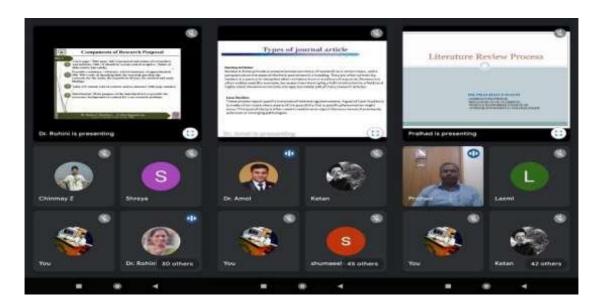
Total 46 students attended the workshop along with 2 teachers.

The third session was about the topic "Literature Review Process" by **Dr.Pralhad Wagh on 14/02/2022** 45 students attended the session. Sir explained the importance about literature review in research. Role in writing research paper, benefits of research paper, components of research, tips for efficiently reading a research paper, systematic citation of references in manuscript and literature review process.

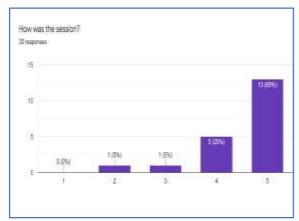
The program was concluded with vote of thanks by the student.

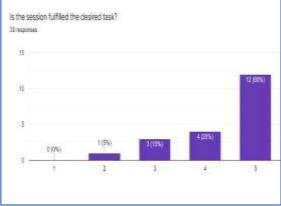
Outcome: To improve the research skill and to participate in various research activities such as conferences, various project, publication, presentation students received pathways of communication in

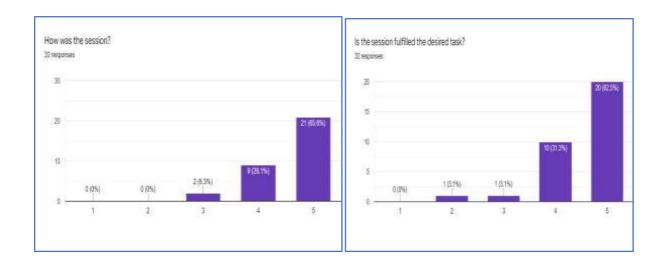
research field and the research paper work. It was new, exciting as well as educational experience for all the students.



FEEDBACK ANALYSIS:







Head Department of chemistry

VPM'S B.N.BANDODKAR COLLEGE OF SCIENCE, THANE (AUTONOMOUS)

DEPARTMENT OF CHEMISTRY

Report Of Virtual Training Program

Department: - Chemistry **Day:** Thursday ,Friday Tuesday **Date:** - February 10,11 and 15, 2022

Time:- 2:00pm-3:00pm Mode of activity: Online

Name of activity: Virtual training program on FTIR, UV and centrifuge for T.Y.B.SC and M.Sc Chemistry

students

Resource Persons: Ms. Nashra Khan, Ms. Siddhi Shingre, Ms. Manali Sondhar Ms. Shumeela

Kupe, M.Sc II Chemistry students

The Department of Chemistry organized a Virtual Training program on instruments for PG and UG chemistry students. This year chemistry department initiated peer learning process. Chemistry PG students initiated training lectures to the M.Sc. and B.Sc Chemistry students. Virtual training was arranged on - FTIR, UV and Centrifuge. The program aimed to train students about the instruments and there application practically on field for further industrial as well as research work virtually.

The first training session was held on 10/02/2022 that covered the topic on UV spectrophotometer by Ms. Nashra Khan (MSC-II). She explained the beers Lamberts Law, relations between Absorption, incident and transmitted light, principle, instrumentation and various application of UV spectrophotometer, structural evaluation of compounds. Various factor affecting the results. She has explained different compounds also exhibited video sampling and working. Total 42 students 2 teachers were benefited from the virtual training.

The second session was led by Ms. Siddhi Shingre (MSc Part II) and Ms. Manali Sondhar (MSc Part II) on "Fourier transform infrared spectroscopy (FTIR)". The session was held on 11/02/2022 .They explained the principle of instrument working processes, application, and instruments of FTIR. The technique is depend on absorption and emission. The reproducible results, data base, noise reduction preparation of solid and liquid pallets, spectral analysis etc. explained by the students. Total 45 students and 2 teachers benefited from the session.

The third and final virtual training was about "Centrifuge" by Ms. Shumeela Kupe (MSc II) on 15/02/2022.

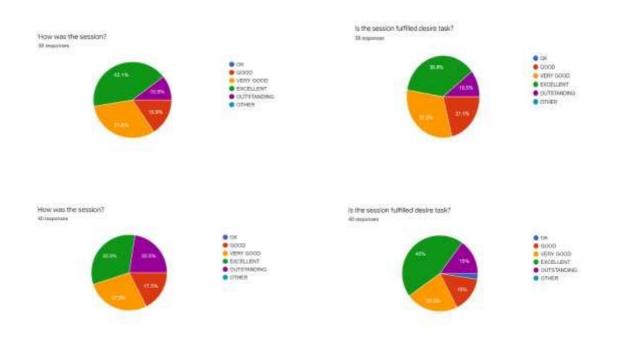
She explained the importance of sedimentation, centrifugal force, density moisture contents in the separation of molecules. Mainly focused on the various techniques used in chemical analysis. Types of various centrifuge and their applications. Ms Shumeela also explained the various filtration media, various phase separation and pelleting in chemical process and synthesis.

The training was excellent benefitted to the UG and PG chemistry students since it's a part of chemical process and required in all chemical and its allied industrial processes.

Outcome: Students experienced an innovative way to learn and understand chemistry digitally. It was and exciting as well as educational experience for all the students.



FEEDBACK ANALYSIS:



Name of activity	Lecture on "Introductory Mathematical Methods -An interdisciplinary Approach"
Objectives of the activity (maximum 40 words) Organizing	To orient students, teachers, and audience towards the use of basic mathematical techniques to learn the possible outcome of a general problem and approach the research. PHYSICS
department/s	TITISIES
Collaborative institute	-
Date (DD / MM / YYYY)	26-03-2022
venue	Physics Laboratory- Department of Physics
Mode	Offline
Details of Resource person (name, designation, institution)	Dr. Shantanu Kadam (Asst. Professor) Satish Pradhan Dnyansadhna College Thane-400604
Key Participants	T. Y. B. Sc and M. Sc Students
Remarkable outcomes/ key take- away messages (max. three)	 The need of Mathematical Analysis. Students' questions demonstrate their deep interest in research. As a today's need of interdisplinary research highlighted by with few daily life examples.
Details of participants	
Total Number	34
Outsiders	01
In-house	33 Faculty members: 07 Students: 34
Additional information	

Name of Coordinator/ teacher in-charge: Dr. Sangita Meshram

Two Geo tagged photos:





Graphical representation of feed-back:

Histogram represent Rating of Lecture

