

Format for the Information for the Annual Report

AcademicYear:2023-24

1. **Dean/Principal/Director:** Prof. Dr. Shrinivas Kulkarni

2. **Vision/Mission /Goals of the College/Institute**
 - a) **Vision**
 - Empowerment through education” is the key to Personal, Social and National development.
 - To be premier Institute providing students with value added higher education in a dynamic environment where today's students meet tomorrow's opportunities.
 - b) **Mission /Goals of the College/Institute**
 - To strive for excellence in academic and nonacademic fields in order to match global standards.
 - To prepare outstanding educators, scholars and researchers and to advance education through research in Science and art of teaching and learning.
 - To work towards advancement of the knowledge base through research by undertaking research in basic, applied and interdisciplinary Sciences.
 - To empower students through education to make them strong, self-reliant, responsible and secular human beings, professionals and citizens, so that they chart out their own path of success and possess perfection in their endeavors.
 - To foster Regional, National and Global competencies among the students.
 - To ensure that every student of Institute becomes an achiever.
 - c) **OBJECTIVES**

The objectives of the Institute can be summarized as follows:

 1. Imparting Post Graduate Training and Conducting Research: The primary objective is to provide advanced training in various disciplines of basic and fundamental sciences at the postgraduate level and to undertake research in diverse subjects.
 2. State-of-the-Art Infrastructure: The Institute aims to offer state-of-the-art infrastructure and facilities to both students and faculty, ensuring an environment conducive to learning and research.
 3. Promotion of Technology Use: The Institute strives to promote the use of technology in teaching, research, and other academic activities, fostering innovation and modernization.

Imparting Basic Human Values: Along with academic excellence, the Institute emphasizes instilling basic human values such as truth and hard work among its students, nurturing their overall development.

Promotion of Student Excellence: The Institute seeks to promote excellence among students

by encouraging their active participation in seminars, workshops, conferences, debates, both at the national and international levels.

Exposure to Eminent Personalities: The Institute facilitates interaction between students and distinguished individuals from various fields through talks and lectures, providing valuable insights and inspiration.

Industry Visits and Experiential Learning: Students are provided with opportunities to visit industries, asylums, and organizations, organizing camps and excursions to enhance their practical understanding and real- world exposure.

Financial and Merit-Based Support: The Institute aims to extend financial and other forms of assistance to deserving and meritorious students, ensuring that financial constraints do not hinder their educational pursuits.

By pursuing these objectives, the Institute strives to create an environment that fosters academic excellence, research, holistic development, and values, preparing students for successful careers and contributing to society at large.

3. College Governance: LMC and other committees

Enclosed as annexure A

4. Names of programmes offered

UG	PG	Ph. D.
	Botany Biochemistry Biotechnology Chemistry Data Science Environmental Science Maths Microbiology Physics Zoology	Botany Biochemistry Biotechnology Chemistry Environmental Science Maths Microbiology Physics Zoology

5. When the curriculum was last revised

Complete: 2021 Partial

6. Number of teaching posts Sanctioned/Filled

	Professor			Asso. Professor			Asst. Professor		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Sanctioned			10			20			41
Recruited	03	00	03	10	05	15	11	09	21

7. Number of research projects of the year 2023-24(on-going/completed)

Sr. No.	Name of the project	Name of the principal Investigator / Co-Investigator	Year of award	Duration	Funding Agency	Total amount of funds provided
1	Hydrogen storage capacity of metal doped nanocages using density functional theory	Prof. Ajay Chaudhari	2023	2023-2026	SERB-SURE	Sanctioned
2	Activity of Molybdenum Dioxide embedded cobalt and Iron oxide nanostructures for Hydrogen and Oxygen Evolution using Photo-Electrolysis for Water Splitting	Prof. Dr. Anamika V. Kadam	2022	2022-2025	DST-SERB	20.17 lakh
3	Fabrication and Development of In -Situ Characterization of Soil	Prof. Dr. Pravin Sadashiv More; Prof. Y S Malghe; Dr. Rajesh Raut	2018	2018-2023	RGSTC	86.10 Lakh
4	Understanding sorption mechanisms in Li /Na silicate sorbents for post/pre-combustion CO2 capture application- synthesis and solidstate NMR strategies"	Dr. Vishal Banewar	2022	2023-2026	DST	51 Lakhs
5	Upskilling & Empowering Women and Senior Citizens for Digital Financial Inclusion and cybersecurity awareness	Dr. Vishal Banewar	2023	2023-2024	CSR (Corporate Social Responsibility)	12 Lakh

6	Rapid and Ultra-sensitive Detection of p-tau- 181 and p-tau-217 antigens using gold nanoparticles antibodies conjugates	Dr. Rajesh W. Raut Mr Sahebrao B Kashid	2022	2022-2025	RGSTC	48.90 Lakh
7	Microwave-assisted novel synthesis of bioactive thiaza, thidiazia, spiro-indoline and different sulphur-nitrogen allied substituted heterocycles.	Dr. Vikas M. Bangade	2023	2023-2026	SERB-SURE	29.98230 LAKHS

8. Inter –institutional collaborative projects and Associated grants received (Add details about beneficiaries, grants received and nature of collaboration)

National collaboration Numbers-				1			
International collaboration numbers-				2			
Sr. No.	Organisation	Name of the Institution / Industry	Year of signing MoU	Duration	Activities	No. of Students/ Teachers participated	Outcome
1	Chonnam National University, Korea	Institute of Science, Mumbai			TEM, XPS and FESEM characterization	7	2 Papers published in International journal
2	Ming Chi University of Technology, Taiwan	Institute of Science, Mumbai	2023		Invited Talk arranged in an International Conference	192	Invited Talk arranged in an International Conference
3	National Chemical Laboratory				TEM, XPS and FESEM characterization	5	Papers published in International journal

9. Details of projects funded by DST-FIST, UGC-SAP/CAS, DPE, DBT, ICSSR, AICTE etc.:

Total grants received

Sr. No.	Name of the PI/Co PI	Name of the Scheme	Name of the funding agency	Year of Award	Funds provided	Duration of award
1	Prof. Ajay Chaudhari	Hydrogen storage capacity of metal doped nanocages using density functional theory	SERB-SURE	2023	Sanctioned	2023-2026
2	Prof. Dr. Anamika V. Kadam	Activity of Molybdenum Dioxide embedded cobalt and Iron oxide nanostructures for Hydrogen and Oxygen Evolution using Photo-Electrolysis for Water Splitting	DST-SERB	2022	Sanctioned	2022-2025

3	Dr. Vishal Banewar	Understanding Sorption Mechanism in Li and Na silicate sorbents for Post/pre-combustion CO ₂ capture applications: Synthesis and SOLID State NMR Strategies	DST	2023	51,00,000	2023-2026
4	Dr. Vishal Banewar	Upskilling & Empowering Women and Senior Citizens for Digital Financial Inclusion and cybersecurity awareness	CSR (Corporate Social Responsibility) ATA FREIGHT LINE INDIA PRIVATE LIMITED	2023	1,200,000	2023-2025
5	Dr. Rajesh W. Raut Mr. Sahebrao Kashid	Rapid and Ultra-sensitive Detection of p-tau- 181 and p-tau-217 antigens using gold nanoparticles antibodies conjugates	RGSTC	2022	48,90,000	2022-2025
6	Dr. Vikas M. Bangade	Microwave-assisted novel synthesis of bioactive thiaza, thidiazza, spiro-indoline and different sulphur-nitrogen allied substituted heterocycles.	SERB-SURE	2023	29.9823	2023-2026

10. Recognition from UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by National and International Agencies

Sr. No.	Name of the Department	Name of the Scheme	Name of the funding agency	Year of Award	Funds provided	Duration of award
	Nil					

11. Special research laboratories sponsored by / created by industry or corporate bodies

Nil

12. Number of publications during the year

Sr. No.	Particulars	Numbers
	Papers presented	29
	Number of Papers published	45
	Number of Books with ISBN	00
	Number of Citation Index – range / average	
	Number of Impact Factor – range / average	4.0
	Peer-reviewed papers(International)	28
	Peer-reviewed papers(National)	02

	Books–Authored	00
	Books–Edited	06
	Chapters in Edited Books/Volumes	00
	Others	00

Give list of the publications in APA format

Sr. No.	Author or authors	Year of publication of the article	Article title.	Journal title (in italics).	Volume of journal (in italics).	Issue number of journal in round brackets (no italics).	Page range of article.	DOI or URL
1-2	Dr. Utkarsha Lekhak	2024	Naturally occurring nanoparticles (NONPs): A review	<i>Next Sustainability</i>	3		100037	10.1016/j.nxsust.2024.100037
		2024	Silver nanoparticles synthesis from <i>Crinum moorei</i> : Optimization, characterization, kinetics and catalytic application	<i>South African Journal of Botany</i>	165		494-504	https://doi.org/10.1016/j.sajb.2024.01.005
3-8	Dr. Shubhangi Patil	2023	Optimization of Spray Pulse Reactor Conditions used for Dehydrogenation of Liquid Organic Hydrides by using Response Surface Methodology	Iranian journal of chemistry and chemical engineering	42	11	3788-3798	https://doi.org/10.30492/ijcce.2023.1986805.5799
		2023	Slow Release of Urea Through Highly Porous Biodegradable Materials Derived from Natural Polysaccharides	Communication in Soil Science and plant Analysis,	54	22	1532-2416	https://doi.org/10.1080/00103624.2023.2256786
		2023	Surface Modification of Nanocellulose: The Path to Advanced Uses of Smart and Sustainable Bio-material	GSC Advanced Research and Reviews	17	1	2582-4597	https://doi.org/10.30574/gscarr.2023.17.1.0400
		2023	Encapsulation of Camphor in Nanocellulose based Pickering Emulsion and Study of its Antibacterial Activity	International Journal for Research in Applied Science & Engineering	11	10	2321-9653	https://doi.org/10.22214/ijraset.2023.56335
		2023	ultrasonic extraction of bilawanol from semicarpus anacardium fruit for forensic.	European Chemical Bulletin	12	10	13228-13233	https://www.eurchembull.com/uploads/paper/21d0b89fd3e06a0b642860852b46e488.pdf
		2024	Ag-Based Bimetallic Nanoparticles for the Catalytic Reduction of	ChemistrySelect	9	18	e202304200 (1 of 29)	https://doi.org/10.1002/slct.202304200

			Nitrophenol and Organic Dyes: An Overview					
9	Sharad L. Jadhava, Amar L. Jadhava, Bhalchandra K. Mandlekar a, Pradip B. Sarawade b, Anamika V. Kadam	2023	Influence of deposition current and different electrolytes on charge storage performance of Co3O4 electrode material	Journal of Physics and Chemistry of Solids	180		111422	https://doi.org/10.1016/j.jpccs.2023.111422
10	Sharad L Jadhav, Amar L Jadhav, Pradip B Sarawade, Bhalchandra K Mandlekar, Anamika V Kadam	2024	Mo-doped porous Co3O4 nanoflakes as an electrode with the enhanced capacitive contribution for asymmetric supercapacitor application	Journal of Energy Storage	82		110540	https://doi.org/10.1016/j.est.2024.110540
11	Bhalchandra K. Mandlekar and Anamika V. Kadam* Amar L. Jadhav, Sharad L. Jadhav	2023	Porous 3D columnar-sphere of NiO nanomaterials synthesized for supercapacitors via hydrothermal route: impact of thiourea concentration	Phys. Chem. Chem. Phys.	25		24712-24720	https://doi.org/10.1039/D3CP03239F
12	AL Jadhav, SL Jadhav, BK Mandlekar, AV Kadam	2023	Hydrothermally synthesized three-dimensional hierarchical CuO nanomaterials for energy storage applications	Materials Chemistry and Physics	310		128494	https://doi.org/10.1016/j.matchemphys.2023.128494
13	Khan, A., Gaikwad, M.A., Kim, J.H., A. V. Kadam	2024	An overview and experimental analysis of WO3/TiO2 composite with enhanced electrochromic properties for smart windows application.	Tungsten			1-16	https://link.springer.com/article/10.1007/s42864-024-00269-x
14	Ayesha Khan, Anamika Kadam	2024	Tailoring TiO2 Films: The Path to Superior Electrochromic Performance	IntechOpen				DOI: 10.5772/intechopen.1004236
15	Suchitra Sapakal, Ayesa Khan, Anamika V Kadam	2024	Hydrothermally Synthesized α -Fe2O3 on Stainless Steel substrate for oxygen evolution reaction	<i>International Journal of Scientific research Science & Technology</i>	11	11	133-139	doi : https://doi.org/10.32628/IJSRST
16	SN Sapakal, A Khan, JM Khobragade, AV Kadam	2023	MoO2-based cost effective catalyst for hydrogen evolution via water splitting	Applied Physics A	129		700	https://doi.org/10.1007/s00339-023-06987-2
17	Ayesha Khan, Suchitra Sapakal, Anamika Kadam	2024	A. Comparative analysis of graphene oxide	Graphene and 2D materials	9		101-109	doi.org/10.1007/s41127-024-00072-y

			(GO) reduction methods: impact on crystallographic, morphological, and optical properties					
18	Amar Laxman Jadhav, Sharad Jadhav, Sawanta S Mali, Chang Kook Hong, Anamika Kadam	2024	3D marigold flowers of copper-nickel oxide composite materials as a positive electrode for high-performance hybrid supercapacitors	New Journal of Chemistry				https://doi.org/10.1039/D4NJ01796J
19	Ayesha Khan, Suchitra Sapakal, Anamika Kadam	2024	In-Depth Study of Annealing Effect on Electrodeposited Titanium Dioxide (TiO ₂) For Smart Windows Application	<i>International Journal of Scientific Research Science & Technology</i>	11	11	28-41	doi : https://doi.org/10.32628/IJSRST
20	Swapnali B. Dhage, Parvindar M Sah, Jaya Lakkakula, Rajewsh W. Raut, Y. S. Malghe	2024	ZnO-CuO nanocomposite synthesized by coprecipitation: characterization and antibacterial properties	Biointerface Research in Applied Chemistry	14	3	59	DOI: 10.33263/BRIAC 143.059
21	Swapnali B. Dhage, Vithoba L. Patil, Arvind M. Yelpale, Yuvraj S. Malghe	2024	Farming of ZnO-SnO ₂ nanocubes for chemiresistive NO ₂ gas detection	Chemistry Select				10.33263/BRIAC143.059
22	Bhushan B. Popatkar, Vikas V. Borge, Ramchandra G. Thorat, Arun K. Kadu, Vikas M. Bangade , Parag S. Panse, Gangadhar A. Meshram	2023	Cysteine Catalyzed Water Mediated Eco-Friendly Approach for the Synthesis of 5-Substituted 1H-Tetrazole and Its Derivatives	<i>Heterocycles</i>	106	7	1175-1186	https://ndjsearch.ndl.go.jp/books/R000000004-1032985699
23	Baliram Nadekar a, Yogesh B. Khollam b, Shoyebmohamad F. Shaikh c, Gaurav Shah a, Yogesh Kakade a, Vishal Banewar d, Umesh T. Nakate e, Abdullah M. Al Enizi c, Pravin S. More a	2024	Biphenyl-rGO composite room temperature gas sensor for enhanced amine sensing	Chemosphere	351	March 2024	141244	https://doi.org/10.1016/j.chemosphere.2024.141244
24	Chavan Jotiram K. and Patil Raju M.*	2023	Microwave assisted Synthesis and Characterization of Novel Acylhydrazonoximes	Research Journal of Chemistry and Environment	27	12	31-34	https://doi.org/10.25303/2712rjce031034

25	Lad M.N. Patil.R.M. and Sathe G.B	2024	Vanadium oxide nanomaterials: catalyst for the decomposition of hazardous dye	Research Journal of Chemistry and Environment	28	5	41-51	https://doi.org/ 10.25303/285 rjce041051
26	Chavan Jotiram K. and Patil Raju M*	2024	Synthesis, Characterization and Antibacterial Activities of Copper Metal Complexes of Some Novel Acyldiazoneoxi me Ligands	Research Journal of Chemistry and Environment	28	6	22-27	https://doi.org/ 10.25303/286 rjce22027
27	Rahilah Shaikh, Rekha Rajput, Rohidas B Kale	2024	Bismuth sulfide/carbon black: as a pt free and efficient counter electrode in DSSC	Physica Scripta	99	2	25936	DOI: https://iopscie nce.iop.org/article/ 10.1088/1402- 4896/ad1b83
28	Rahilah Shaikh, Rekha Rajput, Rohidas B Kale	2023	Inexpensive green synthesis of natural dye-sensitized solar cells with aqueous solution as a Bi2S3 counter electrode	Next Materials	3	1	100051	https://doi.org/10.1 016/j.nxmate.2023. 100051
29	Rekha Rajput, Rupali Mane, Shweta Jamble, Neetu Jha, Rohidas B Kale	2023	N-doped carbon/TiO2 composites with enhanced photocatalytic performance for the removal of organic pollutants	Journal of Physics and Chemistry of Solids	184		111677	10.1016/j.jpms.2023.111677
30	Rekha B Rajput, Abhaysinh Salunkhe, Rohidas B Kale	2023	Solar light induced photocatalytic degradation of textile dyes using solvothermally synthesized SnO2 impregnated pumice stone	Physica Scripta	98	10	105911	10.1088/1402-4896/acf414
31	Rahilah Shaikh, Rekha Rajput, Sonali Pingle, Rohidas B Kale	2023	Significant effects of mesoporus Bi2S3/ poly (vinylpyrrolidone) composites on DSSC performance	Current Applied Physics	55		22-33	https://doi.org/10.1 016/j.cap.2023.08. 009
32	Rekha B Rajput, Rohidas B Kale	2023	Photocatalytic activity of solvothermally synthesized rutile TiO2 nanorods for the removal of water contaminants	Material Science and Engineering: B	294		116556	https://doi.org/10.1 016/j.mseb.2023.1 16556
33	Rekha B Rajput, Rohidas B Kale	2023	The facile synthesis of 3D hierarchical flower-like TiO2 microspheres with enhanced photocatalytic activity	Journal of Physics and Chemistry of Solids	177		111286	https://doi.org/10.1 016/j.jpms.2023.11 1286

<u>34</u>	Huria, N. and Saraf, A.	2024	Pharmacognostic and Phytochemical Studies for the Establishment of Quality Parameters of Leaf of <i>Morus alba</i> L., and <i>Morusindica</i> L.	International Journal of Scientific Research in Science and Technology,	11	1	85-97	https://doi.org/10.32628/IJSRST24111112 .
<u>35</u>	Huria, N. and Saraf, A.	2024	Elemental Characterization of Leaf Extracts of Three Different Species of Mulberry: <i>Morus. alba</i> L., <i>Morus. nigra</i> L. and <i>Morus. indica</i> L., Using Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP-AES).	International Journal of Scientific Research in Science and Technology,	11	2	436-445	https://doi.org/10.32628/IJSRST52411277 .
<u>36</u>	Saraf, A. and Huria, N.	2023	Establishment of Quality Parameters in the Leaf Extract of <i>Morus. nigra</i> L.	Advances in Bioresearch Adv. Biores	14	5	338-348	https://doi.org/10.15515/abr.0976-4585.14.5.338348 .
<u>37</u>	Nikki Huria, Amit Saraf, Aparna Saraf	2024	Estimation of Rutin From <i>Morus</i> Species Using Validated HPTLC Method,	Int. J. of Pharm. Sci.	2	3	565-577	https://doi.org/10.5281/zenodo.10954737
<u>38</u>	Huria, N., Saraf A and Saraf A	2024	Gas Chromatography-Mass Spectroscopy Profile and Anti-Oxidant Activity of <i>Morus Alba</i> L. Leaf Extracts. , 14(2).	IJBPAS	14	2		https://doi.org/10.31032/IJBPAS/2025/14.2.8701
<u>39</u>	Gaikwad, L., & Saraf, A.	2024	Spectral fingerprint analysis of <i>Mesua ferrea</i> Linn. and its adulterants using FTIR and GC-MS techniques.	International Journal of Herbal Medicine	1	2	16-23	https://doi.org/10.22271/flora.2024.v12.i2a.926
<u>40</u>	Lobo, D., & Saraf, A	2023	HPTLC Method Development and Validation for Quantification of Biomarker β -Sitosterol and Betulinic Acid in the Leaves, Stem and Roots of <i>Spermadictyon suaveolens</i> Roxb.	Advances in Bioresearch Adv. Biores	14	5	319-326	https://doi.org/10.15515/abr.0976-4585.14.5.319326
<u>41</u>	Divya Lobo P, Aparna Saraf	2024	Pharmacognostic and Phytochemical Studies for the Establishment of Quality Parameters of Leaves, Stem and Root of <i>Spermadictyon suaveolens</i> Roxb"	International Journal of Scientific Research in Science and Technology(IJS RST)	11	11	59-71	https://doi.org/10.32628/IJSRST

42	Divya Lobo P., Aparna Saraf	2023	Elemental Analysis of Different Plant Parts of Spermadictyon suaveolens Roxb., 2024, Vol 2, Issue 4, 310-320.	Int. J. of Pharm. Sci.	2	4	310-320	https://doi.org/10.5281/zenodo.10931738
43	Neha Mourya and Aparna Saraf	2024	Evaluation of some minerals and trace elements in Bacopa monnieri (Wettst) Linn.	Journal of Pharmacognosy and Phytochemistry	13	2	294-297	https://doi.org/10.22271/phyto.2024.v13.i3d.14970
44	Dr. M. R. Sonawane	2023	Synthesis of NiCo₂O₄/BC composite material for an application of supercapacitor					DOI:10.13140/RG.2.2.20309.81120
45	Dr. M. R. Sonawane	2023	Chemisorption of Molybdenum Atom on Carbon Nanotube Using Density Functional Theory	Physics and Mechanics of New Materials and Their Applications			3-13	DOI:10.1007/978-3-031-21572-8_1

13. H-index of individual faculty (add separate sheet, if necessary)

Sr. No.	Name of the Faculty	H-index
	Prof.S.B.Kulkarni	23
1	Prof. Ajay Chaudhari	32
2	Prof. Dr. A.V. Kadam	16
3	Dr. Vishal Banewar	4
4	Dr. Rajesh W. Raut	15
5	Prof Y S Malghe	16
6	Dr. B. M. Patil	2
7	Dr. U. M Lekhak	19
8	Prof Rupendra Jadhav	24
9	Dr. M. R. Sonawane	03
10	Prof. M. V. Padul	13
11	Dr. S. B. Jadhav	14
12	Prof. Rohidas B. Kale	23
13	Prof. Umesh Kakde	9
14	K. G. Sonawane	9

15	Dr Ravindra Kalesh	5
16	Dr.Shubhangi Patil	3
17	Dr. Vikas M. Bangade	10
18	Dr. Vishal Banewar	4
19	Prof. R.M. Patil	17
20	Prof. Ulhas K. Patil	16
21	Prof. Aparna Saraf	9
22	Prof Selby Jose	5
23	Prof Gayatri Barabde	2

14. Details of patents and income generated

Sr. No.	Name of the Patenter	Patent No.	Title of the Patent	Year of Award of Patent	Income generated
1	Srivastava Rohit, Jaya Lakkakula, Tharayil Deepika D., Raut, Rajesh W.,	201721029703	"Alloy, Bi and Tri Metallic Nanoparticles and Method for Green Synthesis of said Nanoparticles"	Granted Application, Patent Number :201721029703	0
2	Shri S.B.Kashid, Rajesh Warluji Raut	90/MUM/2013	"Process for Growing the Silver Nanoparticles on the Fibres"	Granted Application, Patent Number :377046 2021	0
3	1. LAKKAKULA, Jaya R. 2. THARAYIL, Deepika Divakaran 3. SRIVASTAVA, Rohit 4. RAUT, Rajesh W.	202121046488	Green Process for Synthesizing Metal Nanoparticles within Polymeric Matrices	Granted Application, Patent Number :405579 2022	0
4	Dr. B. M. Patil	202221003201A	Microwave Assisted Synthesis Of Synroc-B From Tartrate Precursor-CBR-1581-20/01/2022	25-02-2022 Published waiting for granted	0
5	Dr.Shubhangi Patil	202321066138	ENVIRONMENTALLY BENIGN PRAWN SHELL CHITIN-SILVER NANO COMPOSITE AND PREPARATION METHOD	24/11/2023 Published	
6	Dr.Shubhangi Patil	202321066122	METHOD FOR THE IN-SITU SYNTHESIS OF SILVER NANO-ACTIVATED CARBON	24/11/2023 Published	

			COMPOSITE USING MAMMALIAN HAIR KERATIN & ITS APPLICATION IN DEGRADATION OF ORGANIC DYES		
7	Prof. Anamika Kadam	202321055842	A method for production of amber colored glass using TiO2	21-08-2023 Published waiting for granted	0

15. Areas of consultancy and Income generated from consultancy

Sr. No.	Name of the Consultant	Name of the Consultancy project	Consultancy / Sponsoring agency	Year	Revenue Generated
	Nil				

16. Revenue generated from corporate training

Sr. No.	Name of the teacher - Consultant / corporate trainer	Title of the corporate training programme	Agency seeking training with contact details	Year	Revenue Generated	No. of trainees
	Nil					

17. Awards/Recognitions received at the National and International level by : Faculty / Doctoral/Post doctoral fellows / Students

Sr. No.	Name	Year of Award	Designation	Name of the Award
1	Prof. Dr. A.V. Kadam	2023	Professor	INSA Scientist Program
2	Ms. Preeti Singh	2023	PG student	"WEnyan Scholarship & Mentorship Programme for Women in STEM Educations and Careers"

Sr. No.	Name of Research fellow	Year of enrolment	Duration of fellowship		Type of the fellowship
1	Ms.Poonam Parkar (Guide-Prof.Ajay Chaudhari)	2022	2022-2027	Inspire Fellowship	DST-Inspire

2	Miss Harshala Naik (Guide- Dr. Rajesh Raut)	2020	2020-2025	UGC-JRF	UGC
3	Ms. Livya Gaikwad (Guide: Prof. Aparna Saraf)	2021	2023-2027	UGC CSIR-JRF	UGC
4	Ms. Suchitra Sapakal (Guide: Prof. Anamika Kadam)	2020	2022-2025	RA	SERB
5	Mr. Amar Jadhav (Guide: Prof. Anamika Kadam)	2020	2021-2025	JRF	SARTHI
6	Mr. Sharad Jadhav (Guide: Prof. Anamika Kadam)	2020	2021-2025	JRF	SARTHI
7	Ms. Sneha Vijay Bidvi (Microbiology)	2023	2023-2028	InspireFellowship	DST
8	Ms. Manisha Patil (Prof. Manisha Kulkarni)	2022	2022-2027	JRF	UGC Single Girl Child
9	Ms. Neelam Ware (Microbiology)	2022	2022-2025	JRF	Mahajyoti
10	Ms. Akshada Bhadane (Microbiology)	2022	2022-2025	JRF	Sarathi
11	Ms. Sayali Mandavkar (Microbiology)	2022	2022-2025	JRF	Sarathi
12	Ms. Mrunal Posam (Microbiology)	2022	2022-2025	JRF	Sarathi
13	Ms. Mamata Bhusara (Microbiology)	2022	2023-2028	JRF	NFST
14	Ms. Pooja Vishwakarma (Biotechnology)	2022	2022-2027	JRF	UGC Single Girl Child
15	Ms. Yamuna Murtunge	2022	2022-2027	JRF	UGC

18. How many students have cleared Civil Services and Defense Services examinations, NET, SET (SLET), GATE and other competitive examinations (2023-24)

Sr. No.	Examinations	Number
	NET	01
	SLET	02
	GATE	02
	GMAT	
	CAT	
	GRE	
	TOEFL	
	CIVIL Services	
	State Government examinations	01
	Any other	

19. List of doctoral, post-doctoral students and research associates

Sr. No.	From the host institution/university	From other institutions/universities
1.	92	05

Sr. No.	Name of the student	Name of guide	Name of institutions/universities
1	Chaitanya Gend	Prof. Ajay Chaudhari	HBSU
2	Poonam Parkar	Prof. Ajay Chaudhari	HBSU
3	Unnati Jethawa	Prof. Ajay Chaudhari	HBSU
4	Kaustubh Nerkar	Prof. Ajay Chaudhari	HBSU
5	Abhishek Kakade	S.B.Kulkarni	Mumbai University
6	Nidhi Tiwar	S.B.Kulkarni	HBSU
7	Mr. Maruti Aldar	Dr. Vishal Banewar	HBSU
8	Mr. Keshav Darekar	Dr. Vishal Banewar	HBSU
9	Ms. Chaitra Shriyan	Dr. Vishal Banewar	HBSU
10	Miss Harshala Naik	Dr. Rajesh Raut	HBSU
11	Mr. Parvindar Sah	Dr. Rajesh Raut	HBSU
12	Mr. Pratik Jagtap	Dr. Rajesh Raut	HBSU
13	Mrs. Bhumika Ambadkar	Dr. Rajesh Raut	HBSU
14	Mr. Sarang Bhagwat	Dr. B. M. Patil	HBSU
15	Mrs. Gayatri Gaydhane	Dr. B. M. Patil	HBSU
16	Mr. Mayuresh Kadav	Dr. B. M. Patil	HBSU
17	Mr. Ranjeet Maske	Dr. B. M. Patil	HBSU
18	Ms. Sailee Raut	Dr. U. M. Lekhak	HBSU
19	Ms. Sneha Ganpule	Dr. U. M. Lekhak	HBSU
20	Ms. Sana Jalili	Dr. U. M. Lekhak	HBSU
21	Ms. Saili Chavan	Dr. U. M. Lekhak	HBSU
22	Ms. Mrunal Posam	Prof. Rupendra Jadhav	HBSU
23	Mr. Rajendra Choure	Prof. Rupendra Jadhav	HBSU
24	Ms. Akshada Bhadane	Prof. Rupendra Jadhav	HBSU
25	Ms. Neelam Ware	Prof. Rupendra Jadhav	HBSU
26	Ms. Sayli Mandavkar	Prof. Rupendra Jadhav	HBSU
27	Mrs. Dipali Khedekar	Prof. Rupendra Jadhav	HBSU
28	Mr. Ganesh Naik	Prof. Manisha Kulkarni	HBSU
29	Mr. Shashank More	Prof. Manisha Kulkarni	HBSU
30	Miss. Aparna Ghadi	Prof. Manisha Kulkarni	HBSU

31	Miss.Snehal Punde	Prof.Manisha Kulkarni	HBSU
32	Ms. Manisha Patil	Prof.Manisha Kulkarni	HBSU
33	Ms. Revathy Swami	Prof.Manisha Kulkarni	HBSU
34	Ms.Saiba Qureshi	Prof.Manisha Kulkarni	HBSU
35	Ms. Swati Girwale	Prof. M. V. Padul	HBSU
36	Ms. Priyanka Deshmukh	Prof. M. V. Padul	HBSU
37	Ms. Vaishnavi Ram	Prof. M. V. Padul	HBSU
38	Dilip Nakhwa	Dr S.B.Chaudhari	HBSU
39	Bapusaheb Shinde	Dr S.B.Chaudhari	HBSU
40	Chetana Kanekar	Dr S.B.Chaudhari	HBSU
41	Rohan Bhagat	Dr S.B.Chaudhari	HBSU
42	Mayur Sarang	Dr S.B.Chaudhari	HBSU
43	Ms. Rahilah Shaikh	Prof. Rohidas B. Kale	HBSU
44	Ms. Sonali Pingale	Prof. Rohidas B. Kale	HBSU
45	Mrs. Gopika Rajan Nair	Prof. Rohidas B. Kale	HBSU
46	Ms. Rukhsar Momin	Prof. Rohidas B. Kale	HBSU
47	Ms. Vrushali Jadhav	Prof. Rohidas B. Kale	HBSU
48	Ms. Nikhat Shaikh	Prof. Rohidas B. Kale	HBSU
49	Ms. Mirza	Prof. Rohidas B. Kale	HBSU
50	Ms. Mamta Bhusara	Dr. Shekhar Jadhav	HBSU
51	Ms. Saloni Mhavarkar	Dr. Shekhar Jadhav	HBSU
52	Guruprasad Mavlankar	Dr.Shubhangi Patil	HBSU
53	Minakshi Bhatu	Dr.Shubhangi Patil	HBSU
54	Prajakta baikar	Dr.Shubhangi Patil	HBSU
55	Deepa Rangdal	Dr.Shubhangi Patil	HBSU
56	Pratik Sutar	Prof. Anamika Kadam	HBSU
57	Puja Deshmukh	Prof. Anamika Kadam	HBSU
58	Vijay Kule	Dr. Ki G. Sonawane	HBSU
59	Mr. Chirag Gawali	Dr. Vikas M. Bangade	HBSU
60	Miss. Harsha Makhija	Dr. Vikas M. Bangade	HBSU
61	Miss. Shraddha Mishra	Dr. Vikas M. Bangade	HBSU
62	Miss. Shubhangi Mishra	Dr. Vikas M. Bangade	HBSU
63	Mr. Dinesh Sharma	Dr. Vishal Banewar	HBSU
64	Ms. Sneha Bidvi	Dr. Manohar Padul	HBSU
65	Mr S. B. Kashid	Prof Y S Malghe	MU
66	Ms Swapnali Dhage	Prof. Y. S. Malghe	MU

67	Mr. Sampat Yewale	Prof. Y. S. Malghe	MU
68	Mr B T Nikam	Prof. Y. S. Malghe	MU
69	Mamata Pimpale	Prof. Y. S. Malghe	HBSU
70	Mr. R B Chopade	Prof. Y. S. Malghe	HBSU
71	Ms.Shivani Malap	Prof.R.M.Patil	HBSU
72	Ms.Sayali Kadam	Prof.R.M.Patil	HBSU
73	Ms.Bhakti Bhardwaj	Prof.R.M.Patil	HBSU
74	Mr. Rajendra Choure	Microbiology	HBSU
75	Ms. Neelam Ware	Microbiology	HBSU
76	Ms. Mrunal Posam	Microbiology	HBSU
77	Ms. Akshada Bhadane	Microbiology	HBSU
78	Ms. Sayli Manadvkar	Microbiology	HBSU
79	Ms. Sneha Bidvi	Microbiology	HBSU
80	Ms. Mamta Bhusara	Microbiology	HBSU
81	Ms. Saloni Mhavarkar	Microbiology	HBSU
82	Ms. Sana Jalili	Microbiology	HBSU
83	Ms. Saili Chavan	Microbiology	HBSU
84	Mr. Ganesh Sathe	Microbiology	HBSU
85	Mr. Sushil Ghadage	Microbiology	HBSU
86	Ms. Deepali Khedekar	Microbiology	HBSU
87	Nikki Huria	Prof. Aparna Saraf	HBSU
88	Divya Lobo	Prof. Aparna Saraf	HBSU
89	Neha Mourya	Prof. Aparna Saraf	HBSU
90	Shubham Burande	Prof. Aparna Saraf	HBSU
91	Shubham Tanpathak	Prof. Aparna Saraf	HBSU
92	Dwijali Deo	Prof. Aparna Saraf	HBSU
93	Liviya Gaikwad	Prof. Aparna Saraf	HBSU
94	Aditi Tamhane	Prof. Aparna Saraf	HBSU
95	Ajay Vishwakarma	Dr. M. R. Sonawane	HBSU
96	Shruti Varma	Dr. M. R. Sonawane	HBSU
97	Brijeshkumar Yadav	Dr. M. R. Sonawane	HBSU

20. Research Scholars/ Post Graduate students getting financial assistance from the University/State/ Central Govt.

Name of Department	PG students (name-fellowship)	Ph.D students (name-fellowship)
Biochemistry	1. Ms. Preeti Singh "WEnyan Scholarship & Mentorship Programe for Women in STEM Educations and Careers"	-
Botany		Livya Gaikwad PhD student BARTI 1. Miss. Harshala Sandip Naik, Ph. D. Scholar; NET JRF; Mrs. Bhumika Ambadkar, Ph. D. Scholar, BARTI Fellowship; 3. Mr. Parvindar Sah Ph. D. Scholar, RGSTC Research Scholar; 4. Mr. Pratik Bhagwan Jagtap, Ph. D. Scholar, BARTI Fellowship
Physics	1. Mr. Yash Tijare- SERB internship	1. Ms. Suchitra Sapakal-SERB RA 2. Mr. Amar Jadhav-SARTHI JRF 3. Mr. Sharad Jadhav-SARTHI JRF 4. Yamuna Murtunge-UGC Fellowship 5. Mr. Chaitanya Gend-Mahajyoti Fellowship 6. Poonam Parker- INSPIRE Fellowship. 7 Mr. Kaustubh Nerkar-SERB Project Associate
Zoology		1. Mr. Bapusaheb Shinde- State Govt. Mahajyoti
Chemistry		1. Chirag Gawali-Mahajyoti
Biotechnology	1. Mr. Rajesh Tamatta qualified CSIR JRF 2. Amey Kulkarni pursuing Ph.D. at IIT Bombay 3. Siddhi Sawant qualified SET 4. Yash Sheregare quallified GATE XL (Life Sciences)	1. Ms. Pooja Vishwakarma
Microbiology		1. Sneha Bidvi: Inspire Fellowship, 2. Sayali Mandavkar : Sarathi Fellowship, Akshada Bhadane : Sarathi Fellowship, 3. Mrunal Posam : Sarathi Fellowship, 4. Nieelam Ware : Mahajyoti Fellowship , Mamata Bhusara: National Fellowship and Schalarship for higher education of ST students

21. Average percentage of courses having focus of employability/entrepreneurship/skill development

Sr. No	Name of the Course	Course Code	Name of the Programme	Activities with direct bearing on Employability/Entrepreneurship/ Skill development	Year of Introduction
1	AI-Enhanced Drug Design: Integrating Organic Chemistry		Value Added Course	Molecular Docking and Study of Drug Likness Charecteristics	2023-24

	Principles with Software Solutions				
2	Green house gas accounting (EVS)		Value Added Course	Different aspects of GHG accounting for businesses explained.	2023-24
3	Silkworm Rearing Technology : Principles and Management : Zoology		Value Added Course	Employability/Entrepreneurship/Skill development/production of silk cocoons	2023-24
4	Microbiology: Holistic Health and Lifelong Fitness		Value Added Course	Skill development in microbiological techniques related to health and fitness	2023-24
	Microbiology: Molecular Modelling for Life Sciences: Simulation and Docking		Value Added Course	Employability/Entrepreneurship/Skill development in molecular modeling and docking techniques	2023-24

22. Value Added Courses

Sr. No.	Name of the value added course with 30 or more contact hours	No. of times offered during the year	Total No. of students completing the course
1	AI-Enhanced Drug Design: Integrating Organic Chemistry Principles with Software Solutions	2	42
2	Microbiology: Holistic Health and Lifelong Fitness	2	
3	Microbiology: Molecular Modelling for Life Sciences: Simulation and Docking	2	

23. List and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the curriculum

Sr. No	Name of the Paper	Semester
1.	Biodiversity and Conservation MSBOGE 102T Generic Elective Course (2 Credits)	I
2.	Ecosystem & Environmental Botany MSBOGG203T/P Core Compulsory (4+2 Credits)	II
3.	Ecology, Environmental Botany and Biotechnology-I (Ecological Concepts and Climate Change) MSBODE305T/P Discipline Specific Elective (4+2 Credits)	III
4.	Ecology, Environmental Botany and Biotechnology-II (Environmental Pollution) MSBODE306T/P Discipline Specific Elective (4+2 Credits)	III
5.	Environmental Impact Assessment MSBOGE30 1T Generic Elective Course (2 Credits)	III

6.	Ecology, Environmental Botany and Biotechnology-III (Conservation, Policies and Practices) MSBODE405T/PDiscipline Specific Elective (4+2 Credits)	IV
7.	Ecology, Environmental Botany and Biotechnology-IV (Technologies for Pollution Control) MSBODE406T/PDiscipline Specific Elective (4+2 Credits)	IV

24. Number of students admitted in programmes offered

Level of Programme	Name of the programme	Intake	2019-20	2020-21	2021-22	2022-23	2023-24
PGProg.1	M.Sc. Physics	40	36	40	39	39	
PGProg.2	M.Sc. Chemistry	80				80	
PGProg.	M.Sc. Botany	20				16	
PhD Prog.	Botany					9	
PG	M.Sc. Biochemistry	20	20	20	20	20	16
PhD Prog.							
PG Prog	M.Sc. Microbiology	20	20	20	20	20	23
PG Prog	MSc Biotechnology	20	20	20	20	20	16
PG Prog	M.Sc. EVS	20	20	16	19	11	8
Ph.D. Prog	Microbiology		6	6	6	12	0
Ph.D. Prog	Biotechnology			1	1	2	0
Ph.D. Prog	Biochemistry	20		2	0	1	
Ph.D Prog.	M.Sc Zoology	20	20	20	20	20	
PG Prog	M Sc Chemistry	80	80	79	79	80	46
Ph D	Chemistry	30	31	35	40	47	

25. Teacher: Student Ratio:

1:12

26. Details of student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences (add separate sheet, if necessary)

- Experiential learning is a key component of the educational approach implemented during laboratory sessions, providing students with valuable knowledge through direct hands-on experience in practical courses. Students are presented with a descriptive problem statement related to the subject matter and are tasked with designing and conducting an experiment to address the problem.
- To begin, students thoroughly understand the problem at hand and engage in

further research by referring to books, research journals, and other relevant sources. They then develop an experiment protocol, outlining the steps and procedures they will follow to carry out the experiment. Once the experiment is conducted, students analyze the results, publish their findings, and provide an interpretation of the data collected.

- To enhance understanding and facilitate discussions, teachers conduct pre- and post- laboratory discussions. These sessions allow students to clarify any uncertainties, ask questions, and receive guidance from the teacher on the interpretation of their observations and data.
- In order to optimize time and resources, students occasionally work in groups to complete their practical work. Each student plays a role within the team, fostering collaboration and encouraging high-quality discussions during lectures, group discussions, and debates on presentations made by their peers. Additionally, special group discussions are organized to delve into student assignments, explore current research issues, and cover other relevant subjects as they arise.
- Assignments based on real-world problems are an integral part of the learning process. Students are required to conduct a literature review, thoroughly examine existing research on the topic, and employ the scientific method to develop a well-structured plan of action to address the problem at hand. This approach encourages critical thinking, research skills, and the application of scientific principles in problem-solving.
- Through experiential learning, students not only acquire theoretical knowledge but also develop practical skills, scientific reasoning, and effective communication abilities. This immersive and interactive learning approach enables students to gain a deeper understanding of the subject matter and prepares them for real-world challenges in their chosen field.

27. Use of ICT enabled tools including online resources for effective teaching and learning process
(add separate sheet, if necessary)

- In each classroom, there is a computer and a projector to facilitate effective teaching and learning. Additionally, if needed, an audio speaker system is available to ensure clear audio during lectures and presentations. The instructors make use of various resources to enhance the understanding of theoretical and practical concepts.
- To explain ideas and concepts, instructors utilize readily available video tutorials, YouTube lectures, and scientific documentaries. These visual aids help to illustrate complex topics, making them more accessible and engaging for students. The use of multimedia resources allows for a dynamic and interactive learning experience.
- In instances where specific topics require further discussion and exploration, instructors present relevant images, journal articles, articles from popular science magazines, and book chapters on the screen. These visual materials provide additional context, examples, and real-world applications, enriching the

learning process and encouraging further exploration of the subject matter.

- Moreover, the instructors offer demonstrations and hands-on training on various software applications commonly used in scientific research and data analysis. Programs such as Excel, Word, PowerPoint, and R programming are personally introduced and explained to students. This practical approach helps students develop essential skills in data simulation, modeling, analysis, and report writing. It also equips them with the necessary tools to produce professional articles and presentations in their academic and professional endeavors.
- By utilizing computer technology, multimedia resources, and software demonstrations, the teaching methods employed in the classroom create an interactive and immersive learning environment. These approaches cater to different learning styles, enhance understanding, and equip students with practical skills that are valuable in their academic and future professional pursuits.

28. Details for initiatives regarding Slow and Advanced Learners

- The evaluation of students' learning progress is a continuous process conducted by each department. Throughout lectures and practical sessions, students' engagement and enthusiasm for learning are observed. If any concerns arise, the respective professors or a panel of teachers provide individual or group counseling to address the specific needs of the students.
- A variety of assessment methods are employed to evaluate students' learning outcomes. Internal descriptive exams, quizzes, and assignments with evaluation rubrics are designed and administered to assess their understanding of the subject matter. Additionally, students are given opportunities to deliver presentations on syllabus themes and cutting-edge research topics, allowing them to showcase their knowledge and presentation skills.
- In teacher meetings, special attention is given to identifying slow learners or students with specific learning requirements. These students are provided with additional teaching and discussion sessions, allowing for extra time and support tailored to their individual needs. Teachers develop study plans customized to suit the requirements of slow learners, helping them to grasp concepts more effectively. At the end of each week, these students are encouraged to discuss their learning progress, enabling teachers to provide personalized guidance and feedback.
- By implementing comprehensive evaluation strategies and providing individualized support, the departments ensure that students' learning progress is closely monitored and that necessary interventions are in place to support their academic development. This approach aims to create an inclusive learning environment where every student has the opportunity to succeed and excel.

29. Details of Personal Counseling and Mentorship programmes for students

- Counseling and mentorship programs are established with the aim of providing individualized guidance and support to students in order to help them achieve their personal, academic, and professional goals. Faculty members closely collaborate with students, offering one-on-one support and

mentorship. During these interactions, students have the opportunity to discuss their concerns, challenges, and aspirations, while the mentor provides guidance, advice, and support tailored to the student's specific needs.

- Confidentiality is a crucial aspect of these counseling and mentorship programs, ensuring that students can openly share their thoughts and difficulties without fear of judgment or repercussions. Faculty members uphold strict confidentiality when necessary, fostering an environment of trust and enabling students to address personal issues, improve their academic performance, develop effective coping skills, and enhance self-awareness.
- Such initiatives are invaluable for students facing academic, personal, or career-related challenges, as they provide a dedicated support system to help them navigate difficulties and unlock their full potential. The mentorship and counseling process focuses on empowering students, enabling them to make informed decisions, develop effective strategies, and overcome obstacles along their educational and personal journeys.
- In the case of MSc Part-II students, they are mentored by specialized teachers in their respective fields of study. These mentors provide guidance and support that caters to both the academic and psychological needs of the students, ensuring a comprehensive approach to their development.
- Similarly, for MSc Part-I students, the Head of the Department takes on the role of mentor, providing mentorship that encompasses academic guidance and psychological support. This mentorship ensures that students receive the necessary assistance and guidance throughout their academic journey, promoting their overall growth and success.
- By implementing counseling and mentorship programs, the institute acknowledges the importance of individualized support in helping students overcome challenges, maximize their potential, and achieve their goals. These programs contribute to creating a supportive and nurturing environment that fosters the holistic development and well-being of the students.

30. Average percentage of placement of outgoing students

Sr. No.	Number of students placed	Name of the employer with contact details	Package received	Programme graduated from
	Nil			

31. Percentage of student progression to higher education (only for the year 2023-24)

Sr. No.	Name of students enrolling into higher education	Programme graduated from	Name of Institution joined	Name of Programme admitted to
1	Akshay Khorate	Institute of Science, HBSU	Tokushima University, Japan	Ph.D. in Physics
2	Niranjan Jadhav	Institute of Science, HBSU	Ecole de technologie superieure (ETH), Quebec, Canada	Ph.D. in Physics
3	Gourav Mota	Institute of Science, HBSU	University of Roma tre, Rome, Latium, Italy	Ph.D. in Physics
4	Dhiraj Gupta	Institute of Science, HBSU	University of Padua Merate, Italy	Ph.D. in Physics
5	Shaniz Forte	Institute of Science, HBSU	Rice University, United States	Ph.D. in Physics

32. Number of Ph.D. scholars working at present during the year

Sr. No.	Name of the Ph.D Scholar	Name of the Department	Name of the guide/s	Year of registration of the scholar
1	Mrs. Sneha Ganpule	Biochemistry	Dr. Utkarsha Lekhak	2022
2	Ms. Vaishnavi Ram	Biochemistry	Prof. Manohar Padul	2023
3	Ms. Priyanka Deshmukh	Biochemistry	Prof. Manohar Padul	2023
4	Miss. Harshala Sandip Naik	Botany	Dr. Rajesh W. Raut	2021
5	Mrs. Bhumika Ambadkar	Botany	Dr. Rajesh W. Raut	2021
6	Mr. Parvindar Sah	Botany	Dr. Rajesh W. Raut	2021
7	Mr. Pratik Bhagwan Jagtap	Botany	Dr. Rajesh W. Raut	2021
8	Nikki Huria	Botany	Prof. Aparna Saraf	2020
9	Divya Lobo	Botany	Prof. Aparna Saraf	2020
10	Liviya Gaikwad	Botany	Prof. Aparna Saraf	2021
11	Neha Mourya	Botany	Prof. Aparna Saraf	2022
12	Shubham Burande	Botany	Prof. Aparna Saraf	2022
13	Shubham Tanpathak	Botany	Prof. Aparna Saraf	2022
14	Dwijali Deo	Botany	Prof. Aparna Saraf	2022
15	Guruprasad Mavalankar	Chemistry	Dr.Shubhangi Patil	2022
16	Minakshi Bhatu	Chemistry	Dr.Shubhangi Patil	2022
17	Prajakta baikar	Chemistry	Dr.Shubhangi Patil	2023
18	Deepa rangdal	Chemistry	Dr.Shubhangi Patil	2023
19	Ayesha Khan	Physics	Prof. Anamika Kadam	2020
20	Amar Jadhav	Physics	Prof. Anamika Kadam	2020
21	Sharad Jadhav	Physics	Prof. Anamika Kadam	2020

22	Suchitra Sapakal	Physics	Prof. Anamika Kadam	2020
23	Ashwini Bhalshankar	Physics	Prof. Anamika Kadam	2020
24	B. Mandlekar	Physics	Prof. Anamika Kadam	2020
25	Pratik Sutar	Physics	Prof. Anamika Kadam	2023
26	Puja Deshmukh	Physics	Prof. Anamika Kadam	2023
27	Akshay Botle	EVS	Prof. Gayatri Barabde	2022
28	Sayli Salgaonkar	EVS	Prof. Gayatri Barabde	2022
29	Shiwani Awle	EVS	Prof. Umesh Kakde	2022
30	Manisha Patil	EVS	Prof. Manisha Kulkarni	2022
31	Revathi Swamy	EVS	Prof. Manisha Kulkarni	2022
32	Ms Swapnali Dhage	Chemistry	Prof Y S Malghe	2018
33	Mr S B Kashid	Chemistry	Prof Y S Malghe	2017
34	Mr B. T. Nikam	Chemistry	Prof Y S Malghe	2017
35	Mr Smpat Yewale	Chemistry	Prof Y S Malghe	2017
36	Ms Mamata Pimple	Chemistry	Prof Y S Malghe	2023
37	Mr R B. Chopade	Chemistry	Prof Y S Malghe	2023
38	Vijay Kule	Physics	Dr. Kiran G. Sonawane	2022
39	Maruti Aldar	Chemistry	Dr. Vishal Banewar	2019
40	Keshav Darekar	Chemistry	Dr. Vishal Banewar	2021
41	Chaitra Sriyan	Chemistry	Dr. Vishal Banewar	2022
42	Dinesh Sharma	Chemistry	Dr. Vishal Banewar	2023
43	Mr. Bapusaheb Shinde	Zoology	Dr. S.B. Chaudhari	2022
44	Ms. Chetana Kanekar	Zoology	Dr. S.B. Chaudhari	2022
45	Ms. Devi Waingankar	Zoology	Dr. S.B. Chaudhari	2023
46	Mayur Koli	Zoology	Dr. S.B. Chaudhari	2023
47	Ms. Snehal Punde	Zoology	Prof. Manisha Kulkarni	2022
48	Ms. Saiba Bano Qureshi	Zoology	Prof. Manisha Kulkarni	2022
49	Ms. Sailee Raut	Biotechnology	Dr. Utkarsha Lekhak	2022
50	Ms. Pooja Vishwakarma	Biotechnology	Prof. Vijay Medhulkar	2022
51	Ms. Aditi Tamhane	Biotechnology	Prof. Aparna Saraf	2023
52	Mr. Rajendra Choure	Microbiology	Prof. Rupenda Jadhav	2021
53	Ms. Neelam Ware	Microbiology	Prof. Rupenda Jadhav	2020
54	Ms. Mrunal Posam	Microbiology	Prof. Rupenda Jadhav	2018
55	Ms. Akshada Bhadane	Microbiology	Prof. Rupenda Jadhav	2020
56	Ms. Sayli Manadvkar	Microbiology	Prof. Rupenda Jadhav	2020
57	Ms. Sneha Bidvi	Microbiology	Prof. Manohar Padul	2023

58	Ms. Mamta Bhusara	Microbiology	Dr. Shekhar Jadhav	2023
59	Ms. Saloni Mhavarkar	Microbiology	Dr. Shekhar Jadhav	2023
60	Ms. Sana Jalili	Microbiology	Dr. Utkarsha Lekhak	2023
61	Ms. Saili Chavan	Microbiology	Dr. Utkarsha Lekhak	2023
62	Mr. Ganesh Sathe	Microbiology	Dr. Samadhan Waghmode	2023
63	Mr. Sushil Ghadage	Microbiology	Dr. Samadhan Waghmode	2023
64	Ms. Deepali Khedekar	Microbiology	Prof. Rupenda Jadhav	2020
65	Ms. Shivani Malap	Chemistry	Prof. R. M. Patil	2023
66	Ms. Sayali Kadam	Chemistry	Prof. R. M. Patil	2023
67	Ms. Bhakti Bhardwaj	Chemistry	Prof. R. M. Patil	2023
68	Mr. Chirag Gawali	Chemistry	Dr. Vikas M. Bangade	2021
69	Ms. Harsha Makhija	Chemistry	Dr. Vikas M. Bangade	2021
70	Ms. Shraddha Mishra	Chemistry	Dr. Vikas M. Bangade	2021
71	Ms. Shubhangi Mishra	Chemistry	Dr. Vikas M. Bangade	2021
72	Ms. Rahilah Shaikh	Physics	Prof. R. B. Kale	2019
73	Ms. Sonali Pingale	Physics	Prof. R. B. Kale	2022
74	Mrs. Gopika Rajan	Physics	Prof. R. B. Kale	2022
75	Ms. Rukhsar Momin	Physics	Prof. R. B. Kale	2022
76	Ms. Vrishali Jadhav	Physics	Prof. R. B. Kale	2023
77	Ms. Nikhat Shaikh	Physics	Prof. R. B. Kale	2023
78	Ms. Aafreen Mirza	Physics	Prof. R. B. Kale	2023
79	Mr. Kiran Madhale	Physics	Prof. S. B. Kulkarni	2023
80	Mr. Digambar Sawant	Physics	Prof. S. B. Kulkarni	2023
81	Ms. Priya Gaikwad	Physics	Prof. S. B. Kulkarni	2023
82	Ms. Girija Mahamunu	Physics	Prof. S. B. Kulkarni	2023
83	Mr. Ajay Vishwakarma	Physics	Dr. Mahadev R. Sonawane	2022
84	Mr. Brijeshkumar Raut	Physics	Dr. Mahadev R. Sonawane	2022
85	Ms. Shruti Varma	Physics	Dr. Mahadev R. Sonawane	2022
86	Mr. Chaitanya Gend	Physics	Prof. Ajay Chaudhari	2020
87	Ms. Poonam Parkar	Physics	Prof. Ajay Chaudhari	2022
88	Ms. Unnati Jethawa	Physics	Prof. Ajay Chaudhari	2022
89	Mr. Kaustubh Nerkar	Physics	Prof. Ajay Chaudhari	2023

33. Number of Ph.D. awarded during the year (2023-24)

Sr. No.	Name of the Ph.D Scholar	Name of the Department	Name of the guide/s	Year of registration of the scholar	Year of award of Ph.D
1	-	Biochemistry	-	-	-
2	Ayesha Khan	Physics	Prof. Anamika Kadam	2020	2024
	Sharad Jadhav	Physics	Prof. Anamika Kadam		
3	Ms.Nidhi Tiwari	Physics	Prof.S.B.Kulkarni	2020	2024
4	Udayraj Yadav	Chemistry	Prof Y. S. Malghe	2017	2023
5	Dr. Dilip Nakhwa	Zoology- Mumbai Uni	Prof S.B.Chaudhari	2017	2023
6	-	Biotechnology	-	-	-
7	Chaitanya Gend	Physics	Prof. Ajay Chaudhari	2020	2024

34. Other programmes offered by the college/institute (Bridge Course/ Certificate Course / Diploma Course / Skill Development Course 2023-24)

Sr. No.	Name of the programme	Intake	Admitted Students
	Nil		

35. Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows enrolled during the year.

Sr. No.	Name of Research fellow	Year of enrolment	Duration of fellowship		Type of the fellowship
1	Mr. Chaitanya Gend	2020	2020-2024	JRF	Mahajyoti Fellowship
2	Ms.Poonam Parkar (Guide- Prof.Ajay Chaudhari)	2022	2022-2027	Inspire Fellowship	DST-Inspire
3	Mr. Kaustubh Nerkar	2023	2023-2026	Project Associate	SERB
4	Miss Harshala Naik (Guide- Dr. Rajesh Raut)	2020	2020-2025	UGC-JRF	UGC
5	Ms. Livya Gaikwad (Guide: Prof. Aparna Saraf)	2021	2023-2027	UGC CSIR-JRF	
6	Ms. Suchitra Sapakal (Guide: Prof. Anamika Kadam)	2020	2022-2025	RA	SERB
7	Mr. Amar Jadhav (Guide: Prof. Anamika Kadam)	2020	2021-2025	JRF	SARTHI
8	Mr. Sharad Jadhav (Guide: Prof. Anamika Kadam)	2020	2021-2025	JRF	SARTHI
9	Ms. Sneha Vijay Bidvi (Microbiology)	2023	2023-2028	InspireFellowship	DST
10	Ms. Manisha Patil (Prof. Manisha Kulkarni)	2022	2022-2027	JRF	UGC Single Girl Child
11	Ms. Neelam Ware (Microbiology)	2022	2022-2025	JRF	Mahajyoti

12	Ms. Akshada Bhadane (Microbiology)	2022	2022-2025	JRF	Sarathi
13	Ms. Sayali Mandavkar (Microbiology)	2022	2022-2025	JRF	Sarathi
14	Ms. Mrunal Posam (Microbiology)	2022	2022-2025	JRF	Sarathi
15	Ms. Mamata Bhusara (Microbiology)	2022	2023-2028	JRF	NFST
16	Ms. Pooja Vishwakarma (Biotechnology)	2022	2022-2027	JRF	UGC Single Girl Child
17	Ms. Yamuna Murtunge	2022	2022-2027	JRF	UGC

36. Total no. of research projects (completed during the year)

Sr. No.	Name of the project	Name of the principal Investigator	Year of award	Duration	Funding Agency	Total amount of funds provided
1.	Fabrication and development of In situ Characterization of soil element determination	PI-Dr Pravin More Co-PI- Dr Rajesh Raut Co-PI-Prof Yuvraj Malghe	2018	3 years extended till sep 2023	Rajiv Gandhi Science and Technology Commission	86.104 lakh.

37. Number of computers available in Department Computer Facility/Laboratory/Office

Computer Facility	Classrooms & Laboratories	Office / Faculty cabin	Total
Biochemistry Computer Lab	Classrooms - 1 Laboratories - 1 Computer Lab - 10	6	18
Botany (15 Computers)	Classrooms : 02	5	13
	Laboratories: 03		
	Instrumentation Room: 02		
	PTC Lab: 01		
Environmental Science	0	2	2
Chemistry	Classroom - 02, Laboratories -07, Coputer Lab -01 , Instrumentation Room -01	11	22
Biotechnology	4	1	5
Microbiology	Classroom: 1, Laboratory: 6	5	12
Physics	03+05		08
Zoology	01+03		04
Data Science	01		

38. Number of equipment available in the Department

Sr.No	Equipment –Existing worth>Rs.1.00 Lakhs	Numbers
1	Physics- SEM equipped with EDS	1
2	Physics-FTIR	1
3	Physics-UV-Vis-NIR Spectrometer	1
4	Physics-PL	1
5	Physics-Workstation	4
6	Chemistry-FTIR	1
7	Chemistry -Microwave Workstation	1
8	Chemistry- Electrochemical Work station and Impedance Analyzer	1
9	Chemistry- Rotatory Evaporator	1
10	Chemistry- PL	1
11	Chemistry - Solar Simulator	1
12	Chemistry- UV-Visible Spectrophotometer	1
13	Chemistry- TG-DTA Analyzer	1
14	Chemistry - XRD	1
15	Chemistry-High Temp Muffle Furnce	1
16	Chemistry- UV-Visible NIR Spectrophotometer	1
17	Chemistry- HPLC	1
18	Department of Botany	
19	Nano Particle Analyser (NTA) Nanosight (UK) LM 20 1	1
20	Sonicator Ultra-sonic 1	1
21	Refrigerated Centrifuge Eppendorf 5101R	1
22	HPLC Agilent 1200 series 1	1
23	HPTLC CAMAG 1	1
24	Cell Counter Guava PCA 1	1
25	Bioreactor INFORS HT 1	1
26	Inverted Microscope Olympus CH 51 1	1
27	UV-Vis Spectrophotometer Shimadzu-1800 2	2
28	PCR (Gradient) 1	1
29	Microplate Reader Biotek 1	1
30	Research Microscope Olympus with Photography 1	1
31	Incubator Shaker 4	4
32	Oil Extractor 1	1
33	Klejdhal Apparatus 1	1

34	HPTLC-MS- interface 1	1
35	Balance 1	1
36	Ultra water Purification system 1	1
37	Flame Photometer 1	1
38	Hot Air Oven 1	1
39	Non-Refrigerated Centrifuge Eppendorf 2	2
40	-40 Refrigerator 1	1
	BIOCHEMISTRY	
1	Spectrophotometer	1
2	Multimode plate reader	1
3	2D Electrophoresis	1
4	Deep freezer	1
5	Shaking incubator	1
6	Cooling centrifuge	1
7	Ultrasonicator	1
8	HPLC	1
9	Table top centrifuge	1
Sr.No	Equipment –added during the last year	Numbers
1	Chemistry-FTIR	1
2	Electrochemical Work station and Impidance Analyzer	1
3	Rotatory Evaporator	1
4	Solar Simulator	1
5	Balance Analytical	2
6	Liquid Handling System	1
	Biochemistry	
1	Ultrasonicator	1
2	Bead Beater	1
3	Microscope	1
4	Ultrafiltration system	1

Sr.No	Equipment –added during the last year	Numbers
1	EVS	
	Weighing balance	1
	Microscopes (Biotechnology)	5
	Desktops (Biotechnology)	4
Microbiology		
Serial Number	Instrument	Numbers
1	HPLC System with UV-VIS and RI Detector and Fraction Collector	1
2	RT PCR System	1
3	Thermocycler	1
4	UV Visible Double Beam Spectrophotometer	2
5	Phase Contrast Microscope	1
6	Fluorescence Microscope	1
7	Microplate Readers	2
8	Speed Vac with Vacuum Pump	1
9	Highspeed Cooling Centrifuge Kubota 3700	2
10	Transverse Flow Filtration System	1
11	Orbital Shaking Incubators	3
12	Autoclaves	2
13	Laminar Air Flow	2
14	Vertical Gel Electrophoresis for PAGE	4
15	Horizontal Gel Electrophoresis for Agarose Gel Electrophoresis	4
16	Gel Documentation System	1

39. Pass percentage of Students in last year (details of students passing the course)

Programme code	Programme Name	No. of student appeared in the final year examination			No. of students passed in the final year examination		
		Male	Female	Total	Male	Female	Total
M.Sc.	M.Sc. Biochemistry	6	9	15	6	7	13
M.Sc.	M.Sc Botany	9	7	16	9	7	16
M.Sc.	M. Sc. Environmental Science	4	7	11	4	7	11
M.Sc.	Chemistry	31	40	71	27	39	66
M.Sc.	M.Sc Zoology	3	14	17	2	11	13
M.Sc.	M.Sc. Biotechnology	3	16	19	3	16	19
M.Sc.	M.Sc. Microbiology	5	15	20	5	15	20

40. Infrastructure

Sr. No.	Particulars	Numbers
	Classrooms	08
	Teaching Labs/ Laboratories	14
	Research Laboratories	12
	Museum/or any such repository	01
	Library	05
	Ladies Lounge/Room	01
	Computer lab	02
	Instrumentation Room	02

41. Number of Seminars/Conferences/workshops, etc. conducted during the year

Sr. No.	Particulars	Name	Date	Number of participant
All Dept	International Conference	Transdisciplinary International Conference on Science and Sustainable Future:Envisioning India @2024	28-29 Feb 2024	202 (Hybrid Mode)
Biochemistry	Seminars / Guest Lectures	1. "Cytotaxonomy: An UnderExplored discipline in Western Ghats of India", by Dr. Manoj Lekhak.	29/08/2023	75
		2. "Optical Microscopy", by Prof. R. B. Kale.	16/02/2024	59
		3. "Get ready for innovative research", by Prof. Ulhas Patil.	21/02/2024	43
		4. "Unraveling gene expression patterns: A journey through DNA microarrays and GEO", by Dr. Sagar Barage.	02/03/2024	19
	Conferences	-		
	Workshops	-		105
		-		76
	Others(specify)	-		
Botany	Seminars (01)	Vikasit Bharat @ 2047–Empowering Young Scientists	9th January 2024	78
	Conferences			
	Workshops (02)	A One Day Interactive Session on Instrumentation Facility was conducted for Biotechnology Students of Kirti College.	4th March 2024	22
		A One Day Interactive Session on Instrumentation Facility was conducted for FY & SY Botany Students of SSR College.	18th March 2024	55

		Excursion Short Excursion to Jijamata Udyan	3rd February 2024	20
		Annual Work Seminar for PhD Students	7th February 2024	11
		Guest Lecture “Career Failures (and Successes) in Agricultural Biotechnology” by Anuradha Raman, Bayer Crop Science, St. Louis, Missouri, United States	8th February 2024	45
		Excursion One-Day industrial visit to Nishant Aromas Pvt Ltd, Palghar	10th February 2024	12
	<u>Others</u> (specify)	Guest Lecture “Indoor Pollution and Phytoremediation” by Dr. S.C. Sharma, Ex- Scientist, CSIR- National Botanical Research Institute, Lucknow	21st February 2024	32
		Guest Lecture “Insights in the field of Palynology” by Prof. Meenakshi Vaidya	23rd February 2024	11
		Short excursion to Mahim Nature Park	24th February 2024	21
		Annual Work Seminar for PhD Students	7th March 2024	11
		Guest Lecture “Paleobotany: A peep into the history” by Prof. Nitin Labhane	14th March 2024.	11
EVS	Seminars	World Wetland Day	8th February 2023	40
		Environment, Social, Governance: How sustainability fits into financial Decision	4th March 2023	60
		World Environment day (Online event)	5th June 2023	80
		International Whale Shark Day	1st September 2023	40
	Activity	Clean up activity at Powai Lake (Under Swachhta hi seva campaign)	2nd October 2023	20
Chemistry		Prof B C haldar Birth centenary Celebration One day Conference on Chemistry for Sustainable Development Towards Net Zero-- 2027	23 December 2023	150

		Research Scholars Meet (RSM-2024)	23-24 Feb 2024	97
Physics	Workshop	"Forensic Evidence Analysis by XRD: Hands on Training", by Prof. R. B. Kale.	13 Jan,2024(one day)	19
		Characterization of nanomaterials and illustration of their innovative applications	27 Jan 2024	84
		"Expert Guidance session on Scanning Electron Microscopy (SEM)", by Mrs. Bhagyashree Chalke, Sr.Scientific officer, TIFR, Mumbai	15 Feb 2024	45
		Workshop on Characterization Techniques for Analysing Various Materials	2 Mar, 2024	50
		Educational tour (Study Tour) at Institute of Science, Dr. Homi Bhabha State University, Mumbai.	29 Feb 2024	44
	Seminar	"Seminar on Surface Analysis - New Opportunities for Advanced Materials Characterization" by Dr. Sankar Raman, Retired-Surface analysis Business Development Executive, St. Louis, Missouri, United States.	8 Feb 2024	45
		Importance and Opportunity of 'Data Science' In the Field of Research and Industry	30 Oct 2023	122
Zoology	Others (specify)	National Science Day Celebration	1st March, 2023.	75
		Guest Lecture Series on Value added Course: Sericulture	6-9 March 2024	15
		Teachers' Day Celebration:	5th September, 2023	40
		International Women's Day celebration	9 March 2024	33
		One day excursion at Sanjay Gandhi National Park	19 March 2024	17
		Field Visit to Sericulture Farm at Ghoti	1 March 2024	17
		Visit to Maharashtra Nature Park, Mahim	17th October, 2023	17

42. Number of Seminars/Conferences/workshops, etc. attended by the faculty during the year

Sr. No.	Particulars	Name	Date	Number of participant
	Seminars			
	Conferences	14	Details given below	
	Workshops	08		
	Others(specify__)	01		

Sr. No.	Name of Faculty	Seminars	Conferences	Workshops	Others (specify)	Dates attended
1	Prof. Manohar V. Padul		2			1. 10 Feb 2024, 2. 10 March 2024
2	Dr. Shekhar B. Jadhav		2	1		Conferences - 1) 22 Feb - 23 Feb 2024. 2) 28 Feb - 29 Feb 2024. Workshop - 1) 15 Apr - 26 Apr 2024
3	Dr. Utkarsha Lekhak		3			
4	Dr. Shubhangi Patil		2			1. February 23 & 24, 2024 2. 28 Feb - 29 Feb 2024.
5	Dr Ravindra Kalesh		1	2		1. International Conference ICFEI@2024 on 28 and 29 Feb 2024 2. workshops- 1) 27 January 2024 2) 18 August 2023
6	Prof. Anamika V. Kadam				INSA visiting scientist Program	01/11/2023 to 30/11/2023
7	Dr. Vikas M. Bangade			2		workshops 15 April to 2 may and 06 may -16 may 2024
8	Prof. R.M. Patil		2			Conference 22 -23 feb 2024
9	Dr. M. R. Sonawane			3		
10	Mrs. Swati D. Vilhekar		2			1. February 23 & 24, 2024 2. 28 Feb - 29 Feb 2024.

43. Number of Teachers undergoing online / face-to-face FDP, PDP, Orientation/ Induction programme / Refresher Course, Short Term course during the year.

Sr. No.	Name of teachers	Title of the programme	Duration (From - To)
1	Dr Ravindra Kalesh	Post promotional Training at YASHADA Offline	10 April 2023 To 21 April 2023
2	Dr. Shubhangi Patil	Training on Information Security (Online) Yashada Pune	23 August 2023- 25 August 2023
3	Dr. Shubhangi Patil	Sustainable development Goals(SDG) by Yashada Pune	15 June 2023-16 June 2023

4	Dr. Kiran G. Sonawane	Foundation training programme for officers of Higher and Technical education at YASHADA offline	22/05/2023 to 20/06/2023
5	Prof. Anamika V. Kadam	Foundation training programme for officers of Higher and Technical education at YASHADA offline	21/11/2023 to 20/12/2023
6	Mrs. Swati D. Vilhekar	online two week refresher course in chemistry	30/06/23 to 14/07/23
7	Mrs. Swati D. Vilhekar	one week fdp on research methodology	24/06/23 to 29/06/23
8	Mrs. Swati D. Vilhekar	two days holistic approach to human education	26/02/23 to 27/02/23

44. Number of Awards/Recognition/Patents during the year

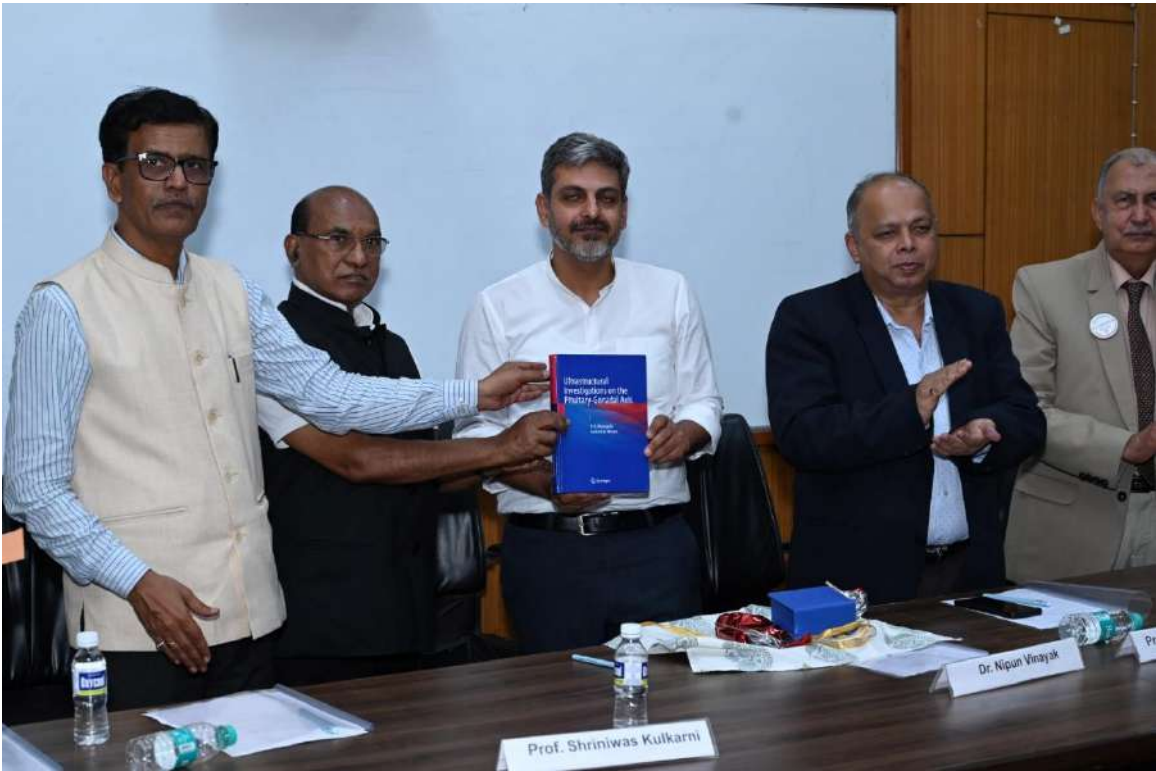
Particulars	Numbers
Awards	17
Recognition	
Patents	07
Others(specify__)	

45. Details of Alumni Meet

The Institute of Science Mumbai Alumni Association (ISMAA) plays a vital role in supporting the growth and development of students through various initiatives and programs. The association provides scholarships, mentoring, invited talks, lectures, networking opportunities, and outreach programs that have a meaningful impact on students' lives. The Annual General Body Meetings (ECM) of ISMAA were conducted in a hybrid mode (online and offline) on the following dates:

1. ISMAA AGBM: 24.02.2024
2. The Annual Alumni Get-Together & Dinner took place on 16th March 2024. During the event, the Vidnyan Sanstha Ratna Awards were presented to four distinguished alumni: Padma Shree Dr. Yazdi Italia and Prof. Sharad Chaphekar. The gathering was attended by over 150 alumni including senior teachers, and the function was presided over by the Hon'ble Director, PM-USHA, Maharashtra State, Dr. Nipun Vinak, and Hon'ble Vice Chancellor Prof. Rajanish Kamat. On the occasion of the get-together, one Springer Book authored by Prof. D.A. Bhiwgade (Ex-ISC) and Dr. Sasikumar Menon (Alumnus) was released. The dinner was sponsored by Alumnus Dr. Razia and Dr. Surendra Manjrekar. Several talks and lectures were organized in collaboration with the Department of Botany and Physics:







46. Details of ten Distinguished Alumni

Sr. No.	Name of the Alumni	Position	Contact No.	E-mail ID
Biochemistry 1.	Dr. Mohan Chellani	President, Progen Life Sciences, USA	1 (949) 533- 6532	mtchellani@yahoo.com

2	Prof. S.B. Chaphekar	Ex. HoD, Dept. of Botany, Founding Trustee, ENBITECH, India's first ecology-based public trust.	9323243652	sharad.chaphekar@gmail.com
3	Dr. Ardeshir Damania	Department of Plant Sciences, University of California, USA	530-848-2932	abdmania@ucdavis.edu
4	Dr. K.V. Hippalgaonkar	Ex.- JDHE, Aurangabad	9820609192	kvhippal@gmail.com
5	Dr. Vasant Pusalkar	Industrialist Director, Breeding Botanicals India	9443329598	vrapusalkar@yahoo.co.in
6	Prof. Sanjay Deshmukh	Ex. VC, Mumbai University	9820095085	docsvd@yahoo.com
7	Madhav Mhaske	Ex. GM, State Trading Corporation, Mumbai	9833546362	
8	Dr. T.S. Bhal	IPS, Add. Director General of Police, MS (Retd.)		
9	Prof. Anil Patil	Ex. Director, BCUD, Mumbai University.	7057030033	dranilpatil@rediffmail.com
10	Dr. Gautam Talukdar	Scientist F, Head, Protected Area Network, Wildlife Institute of India, Dehradun	9456178697	gautamtalukdar@gmail.com
11	Dr. Aftab Ahmed Shabnam	Scientist-D, Central Muga Eri Research & Training Institute Central Silk Board, Ministry of Textiles: Govt. of India. Lahdoigarh, Jorhat-785 700, Assam, INDIA	9797111974 / 7006254485	aftab.csb@gov.in aftab2006@gmail.com
12	Prof. R.M. Pai	Former Prof. & Head, Dept. of Botany, Marathwada University	9960610146	
13	Prof. R.N. Joshi	Former Prof. & Head, Dept. of Botany, Marathwada University	9922401363	
14	Dr. Farhad Vesuna	Faculty, Johns Hopkins University	410-955-7426	

47. Any two best/healthy practices of department (Title of the practice, Objective of the practice, Context, The practice, Evidence of success, Problems encountered and resources required , Note optional)

Name of the department	Details of activities
Botany	Title: Annual Work Seminar for Research Scholars

	<p>Objectives: Bringing together faculty members, researchers, and students to present their work and exchange knowledge, ideas, and expertise.</p>
	<p>Context: Promoting healthy research practices and exchange of ideas. Providing platform for Research Scholars to showcase their work. Enhancing the development of Research Scholars through exposure to new ideas and methods.</p>
	<p>Practice: The Department of Botany conducted Annual Work Seminar for Research Scholars on 7th February & 7th March 2024.</p>
	<p>Evidence of Success: Research Scholars presented their research in the presence of external experts and other research scholars. They had an opportunity to engage in collaborative learning which contributed to the advancement of their knowledge. The comments and suggestions given by the experts were incorporated in their future work.</p>
	<p>Problems Encountered: Space and time constraint.</p>
Physics	<p>Title: One-day Certificate Oriented Workshop for Graduate Students on Characterization of Nanomaterials and illustration of Their Innovative Applications</p>
	<p>Objectives: 1. To provide knowledge of characterization techniques 2. To synthesize nanoparticles 3. To study innovative applications of supercapacitor, water splitting, solar cell, electrochromism.</p>
	<p>Context: Promoting institute research to society. Creating awareness of research in graduate students and promoting them for higher studies. Providing opportunity to research scholar to work as an expert.</p>
	<p>Practice: Department of Physics conducted one day workshop for S.Y. B.Sc. and T.Y.B.Sc. Physics students of various colleges situated in Maharashtra</p>
	<p>Evidence of Success: More than 150 students registered, among which 84 students selected to attend the workshop. Good Feedback provided by student above 90%. Students demanded to conduct such activities regularly</p>
	<p>Problems Encountered: Time constraint</p>
Chemistry	<p>Organises a NET -SET workshop for guidance of Student</p>
	<p>Research Scholars Meet</p>
	<p>Hands on Training on Instruments</p>
Microbiology	<p>Organise Journal Club where students learn critical analysis of research papers and presentation of research work.</p>
	<p>Problems Encountered : Space</p>

48. Achievement and Unique features of the department

Name of the department	Details of Achievement
Biochemistry	<p>1. Research oriented environment in the Dept. as evidenced by -</p> <p>i) All of the three faculty members are Ph.D. guides in more than two Subjects.</p> <p>ii) The WEnyna Scholarship received by the PG student.</p>

	2. Every year at least 1 student qualify the SET/NET/GATE examination. 3. Coomputer Lab for the Research and Bioinformatics related work.
Botany	Green Initiative: Medicinal Plant Garden
	Every year at least 1 student qualifies the SET/NET/GATE examination.
	Annual Work Seminars for PhD Students
EVS	1. Students and faculty encouraged to participate in national and international conferences.
	2. Faculty and students winning prizes in national conferences for oral presentation.
	3. Research papers and book chapters accpeted for publication/ published in peer reviewed international journals
	4. Students are encouraged to undertake the dissertation research work in companies / reputed companies to get hands-on experience.
Chemistry	1. Students and faculty encouraged to participate in national and international conferences.
	2. Research papers are published in peer reviewed international journals
	3, 2 ongoing Research Projects
	4. Central Instrument Lab is available for Staff and Student
	5. Computer Lab is available for PG and Research students
Microbiology	1. Students and faculty encouraged to participate in national and international conferences.
	2. Developed the computational Microbiology and bioinformatics facility using available basiccomputer infrastructure and open source software
	3. Students are guided for application process for Inspire fellowship and one student got the fellowship.
	4. Students are encouraged and guided to undertake the dissertation research work in departent Laboratory
	5. Trained sudnts to lear daat analysis , bioinformatics, and simulation using open source softeaes like R programming, Ubuntu, GROMAC
Zoololgy	1. Researcxh Students and faculty encouraged to participate in national and international conferences.
	2. Faculty and students winning prizes in national conferences for oral presentation.
	3. Research papers accpeted for publication/ published in Scopus and peer reviewed international journals
	4. Students are encouraged to undertake the OJT/ dissertation research work in companies / reputed companies to get hands-on experience.

49. Any other information that indicate distinctiveness of the department not covered so far

Name of the department	Details of information as per point 49
Botany	Awareness program: The department educates students and staff of the Institute on the importance of sustainability and the role that plants and

	ecosystems play in promoting a healthy environment. This is done through conducting invited talks, workshops, and other educational activities.
	Planting trees and green spaces: The department plants trees and other greenery around its buildings and campus. This helps to improve the air quality and also provides a source of fresh material for research students working on medicinal plants.
	Composting: The department started composting organic waste such as plant trimmings, leaves, and other wet garbage generated by the canteen. Composting reduces the amount of waste that goes to landfills and create a natural fertilizer which is used in gardens and green spaces.
	Encouraging sustainable practices: The department encourages sustainable practices such as reducing the use of plastic, promoting recycling, and conserving water and energy.
Zoology	Maintaining butterfly garden
Microbiology	Emphasis on Soft Skills: The department actively works to improve the soft skills of students, particularly in presentation and writing, ensuring they are well-prepared for both academic and professional settings.
	Encouragement of Open-Source Software: Students are encouraged to learn and use open-source software such as R and LaTeX, which are essential tools for research and data analysis in modern scientific investigations.
	Comprehensive Data Analysis Training: The curriculum includes thorough training in data analysis, equipping students with the skills to handle and interpret complex datasets effectively.
	Advanced Computational Facilities: The department provides access to advanced computational facilities, including bioinformatics tools, molecular dynamics simulations, and molecular docking, fostering cutting-edge research capabilities.
	Specialized Areas of Focus: The department offers specialized training and research opportunities in Pharmaceutical Microbiology, Food Microbiology, Agricultural Microbiology, and Epidemiology, addressing key areas of societal and industrial relevance.
	Integration of Bioinformatics: A strong emphasis on bioinformatics ensures that students are proficient in computational biology techniques, enhancing their research and analytical skills.
	Hands-on Learning Experience: Students gain practical experience through hands-on training with state-of-the-art instruments and technologies, preparing them for successful careers in industry and academia.
	Interdisciplinary Approach: The department fosters an interdisciplinary approach, encouraging collaboration across different scientific domains, which enriches the learning experience and broadens research perspectives.

50. Strength, Weakness, Opportunities and Challenges(SWOC) of the department (five points each)

Name of the department	Details of Strength, Weakness, Opportunities and Challenges(SWOC) of the department (five points each)
Zoology	Strength Qualified learned Senior Teachers
	Weakness Less space and staff
	Opportunities Research qualities are inculcated more
	Challenges lack of space, staff, Instruments Chemicals

Biochemistry	Strengths:
	1. Knowledgeable Faculty, Passionate about their research
	2. National & International level work experience of the faculty.
	3. Bright M.Sc. and Ph. D. Students
	4. Interdepartmental and interdisciplinary collaborations with the other departments of the institute and constituent colleges of HBSU
	5. Collaboration with the other Universities and faculty
	6. Support from Alumni of the department
	Weaknesses
	1. Less no. of teaching faculty
	2. No Nonteaching staff: Lab attendents/ Lab Assistants
	3. Limited funding for the research/ Practicals
	Opportunities:
	1. Increasing the number of collaborators
	2. Generation of funds from various funding agencies
	3. Starting some certificate courses and diploma courses realated to the field
Challenges:	
1. Managing the available resources	
2. Lab and equipment maintainance	
3. Limited resources	
Botany	Strength:
	Strong and knowledgeable faculty who are passionate about their Research
	Well-equipped labs for conducting research
	Good students/PhD scholars
	Interdisciplinary collaborations with other departments and institutions
	Medicinal Plants Garden
	Weakness:
Limited funding for research	
Vacant faculty positions leading to high workload for faculty members	

	No Non-teaching Staff in the Department (Lab Asst./Attendant)
	No post of field collector
	Opportunities:
	Expansion of interdisciplinary collaborations and partnerships
	Increased funding opportunities through grants and partnerships
	Expansion of course offerings and curriculum diversity
	Challenges:
	Limited resources for conducting research and maintaining facilities
	Strengths - 1. Work environment conducive for research despite availability of limited resources.
	2. The students being taught by the faculty having expertise in their respective fields.
	3. Students and teachers encouraged to present their research in the national and international conferences.
	4. The curriculum is very well updated.
	5. Collaborative research (on personal level) carried out in the department.
	Weakness - 1. Contractual staff, not a single regular faculty.
	2. No opportunity for applying for funded research as all the staff members are contractual.
	Opportunities: 1. Granting aided status to the department so that the regular faculty is appointed.
	2. Encouragement for collaborations from college and university level.
	3. Permission to apply for external funding.
	4. Starting certificate courses so as to earn some additional funding for the department.
	Challenges - 1. Contractual faculty resigning due to very low salary.
	2. Low enrollment for the course since last 2 years
	3. Late admissions, lack of immediate hostel availability for outstation candidates
EVS	4. Non availability of chemicals (since lockdown), sophisticated instruments
	Strengths: Conducive work culture, demand for the subject
	Weaknesses: Contract staff, space scarcity for any expansion, no scope for staff upgradation
	Opportunities: To become centre of excellence as part of the govt setup, obtaining grant-in-aid status will help in growth of the staff as well as getting research and development grants
Biotechnology	Challenges: Difficult to retain good staff due to contractual nature of the appointments, resource limitations, non-availability of space in the campus, limited hostel facilities as many out station students find it difficult to continue after taking admission.

Chemistry	Strength
	1. Qualified and expert (experienced) faculty. members.
	2. Classrooms are ICT enabled. .
	3. Spacious laboratories.
	4. Seprate Lab for PG teaching and Research
	5. Central Instrument Facility is available in Department
	6. Deptmental Library
	7. Computer Lab is available for students.
	Weakness
	1. Limited no. of teaching faculty
	2. Inadequate Nonteaching staff: (Lab attendents/ Lab Assistants)
	Opportunities
	1. Location of department is unique Possibility/Strengthening the collaboration with premier Institutes like TIFR, BARC, IIT, ICT etc.
	2. Can Start Certificate course for benifit of Student.
	3. Scope to improve the quality of research.
	4. To attract more Funding From funding agencies like DST , RGSTC, DAE=BRNS, CSIR etc.
	Challenges
1. To attract the good students towards basic science courses	
2. Student Strength is decreasing .	
3. to manage with limited teaching and non teaching staff	
Microbiology	Strengths
	1. Highly qualified and experienced faculty.
	2. Advanced research facilities and state-of-the-art instruments.
	3. Strong industry and academic collaborations.
	4. Diverse research areas including Pharmaceutical, Food, Agricultural Microbiology, and Epidemiology.
	5. Successful track record of student placements and internships.
	6. Active alumni network providing mentorship and career guidance.
	7. Robust curriculum with hands-on training and practical exposure.
	8. Access to computational facilities and bioinformatics tools.
	9. Active participation in national and international conferences and workshops.
	Weaknesses
	1. Limited physical space leading to a space crunch for laboratories and classrooms.
	2. Insufficient funding for expanding infrastructure and research facilities.
	3. Need for more interdisciplinary research programs.
4. Limited availability of high-end computational resources.	

	Opportunities
	1. Expanding research in emerging fields like CRISPR, Metagenomics, and Synthetic Biology.
	2. Establishing new collaborations with leading research institutions and industries.
	3. Enhancing curriculum with new courses and specializations to meet industry demands.
	4. Increasing the number of workshops, seminars, and guest lectures by industry experts.
	5. Promoting innovation and entrepreneurship through incubation centers and startup support.
	6. Leveraging alumni network for better industry connections and opportunities.
	7. Securing external funding and grants for research and infrastructure development.
	Challenges
	1. Addressing the space crunch issue for accommodating growing student and faculty needs.
	2. Keeping up with rapid advancements in microbiology and related fields.
	3. Ensuring continuous funding and financial support for research projects.
	4. Balancing teaching and research responsibilities for faculty.
	5. Managing increased administrative and regulatory requirements.
	6. Attracting and retaining top talent in a competitive academic environment.
	7. Integrating new technologies and methodologies into the existing curriculum.

51. Plan of action for the next academic year.

Name of the department	Details of Plan of action for the next academic year.
Biochemistry	1. Organization of NET-SET Workshop
	2. Organization of Annual research work presentation meet for faculty as well as students
	3. Organization of Alumni Interactions with students
	4. Organization of Short/Long Industrial visits
	5. Organization of Guest lectures/ Invited talks of the people from Industry/ Academia
	6. Repair/Renovation of the existing labs/research facilities.
Botany	Creation of Fern Garden
	Organization of Research Scholars Meet in the Department
	Organization of Instrumentation Workshop
	Organization of Internship program
	Organization of Invited talks by eminent personalities.

	Organizing Long Excursion/Industrial Visits
	Organization of NET/SET workshop
EVS	1. Organizing more field and industrial visits.
	2. Arranging more guest lectures of the experts.
	3. Providing hands on experience of softwares used in the subject of Environmental science
	4. Organizing campus placement for the students.
	5. Organizing NET SET exam guidance workshop
	6. Organizing alumni meet
Chemistry	Organization of NET -SET workshop for students
	Organization of National Conference on Recent Trends in Chemistry
	Organization of Invited talks by eminent personalities.
	Organisation of Hands on training on Analytical Instruments
Biotechnology	1. Establish MOU and collaborations with other research Institutes / industries 2. Facilitate internship programmes 3. Conduct ET-SET workshop in collaboration with Microbiology Department. 4. To promote interaction of students with the alumni of the Department and the Institute 6. To establish journal club for research paper presentations and student-faculty interactions
Zoology	1 Organization of Annual research work presentation meet for faculty as well as students
	3. Organization of Alumni Interactions with students
	4. Organization of Short/Long field/Industrial visits
	5. Organization of Guest lectures/ Invited talks of the people from Industry/ Academia
	6. Repair/Renovation of the existing labs/research facilities.
Microbiology	1. Organization of NET-SET Workshop
	2. Organization of Annual Research Work Presentation Meet for Faculty as well as Students
	3. Organization of Alumni Interactions with Students for sharing in field experiences and create awareness of industry.
	4. Organization of Short/Long Industrial Visits including visits to waste treatment plants, Pharmaceutical, Food, and Agricultural Microbiology facilities
	5. Organization of Guest Lectures/Invited Talks by Industry and Academia Experts
	6. Repair/Renovation of Existing Labs/Research Facilities
	7. Establish MOU and Collaborations with Other Research Institutes/Industries
	8. Facilitate Internship Programs in Pharmaceutical Microbiology, Food Microbiology, Agricultural Microbiology, and Epidemiology Research
	9. Organization of Hands-On Training Workshops on Computational Facilities, Bioinformatics, Molecular Dynamics Simulations, and Molecular Docking
	10. Establish a Journal Club for Research Paper Presentations and Student-Faculty Interactions

11. Creation of a Bioinformatics Lab and Computational Facility to support advanced research
12. Organization of Short Courses on Pharmaceutical Microbiology, Food Microbiology, Agricultural Microbiology, Epidemiology, Computational Biology, Bioinformatics, Molecular Dynamics, and Molecular Docking
13. Development of Additional Courses such as:
a. Industrial Microbiology
b. Advanced Techniques in Microbial Research
c. Microbial Genetics and Genomics
d. Microbial Biotechnology
e. Environmental Microbiology
f. Applied Microbial Technology
14. Organizing Workshops on Emerging Technologies in Microbiology like CRISPR, Metagenomics, and Synthetic Biology
15. Promotion of Entrepreneurship and Innovation in Microbiology through Startup Incubation Programs
16. Train students in soft skills and to write and improve their CV for improved selection in jobs
17. Organizing Career Guidance and Placement Workshops to enhance employability of students

52. Reports of some eye catching activities arranged in Institute are given below:

Annexure A

REPORT



THE INSTITUTE OF SCIENCE, MUMBAI-400032

ACADEMIC AND ADMINISTRATIVE COMMITTEES

Following Academic and administrative committees of the teaching staff members have been formed vide Rule 169 of Mumbai Education Manual for the academic year 2023-24 All concerned should do the needful for smooth functioning of the institute.

Sr.No	Title of the Committee	Name of the faculty Members
1	Steering Committee	Prof.Ajay Chaudhari (Physics) Co-ordinator
		All Heads & Co-ordinator
		Prof. Y.S.Malghe (Chemistry)
		Prof.R.B. Kale (Physics)
		Prof. Rupendra Jadhav (Microbiology)
		Prof. Sushil Chaudhary (Zoology)
		Dr. R.A. Tayade (Chemistry)
2	Secretary to Common Room	Dr. Ravibabu Tayade (Chemistry) Co-ordinator
3	Planning & Budget	Prof. S. B. Kulkarni (Physics) Chairman
		Prof.Ajay Chaudhari (Physics)
		Prof. Y.S.Malghe (Chemistry)
		Prof.R.B. Kale (Physics)
		Prof. Umesh B. Kakade (Botany)
		Prof. Sushil Chaudhary (Zoology)
		Shri. Sambhaji Sable (Office)
4	Store Committee	Prof. Ratnamala Sonawane (Chemistry) Co-ordinator
		Prof. Rupendra Jadhav (Microbiology)
		Prof. Archana Nerkar (Zoology)
		Dr.Rajesh Raut (Botany)
		Dr.Shekhar Jadhav (Biochemistry)
		Dr. Ravindra R. Kalesh (Physics)
		Shri. Sambhaji Sable (Office)
Shri Prashant Patil S.O.		
5	Pay Pension Fixation for Teaching & Non-Teaching Staff	Prof. Y.S.Malghe (Chemistry) Co-ordinator
		Prof.. Selby Jose (Mathematics)
		Prof. Anamika Sonawane (Physics)
		Prof. R.M. Patil (Chemistry)
		Prof. Sushil Chaudhary (Zoology)
6	Library	Prof. Ratnamala Sonawane (Chemistry) Co-ordinator
		Prof. Y.S.Malghe (Chemistry) Co-ordinator
		Prof. R.M. Patil (Chemistry)
		Shri. S.B. Kashid (Chemistry)
		Dr. Kiran Sonawane (Physics)
Dr. Utkarsha Lekhak (Biochemistry)		
7	Faculty and Staff Member Grievances Committee (Statutory)	Prof.Ajay Chaudhari (Physics) Co-ordinator
		Prof. Archana Nerkar (Zoology)
		Prof. Abhay N. Salve (Botany)
		Prof. Y.S.Malghe (Chemistry)
		Shri. Sambhaji Sable (Office)

8	Publicity Committee	Dr. Rajesh raut (Botany) Co-ordinator
		Dr. B.M. Patil (Chemistry)
		Shri. Rajendra Choure (Microbiology)
9	Philosophical Association & Staff Academy	Dr. Shekhar Jadhav (BioChemistry) Co-ordinator
		Prof. Ratnamala Sonawane (Chemistry)
		Prof. Manisha Kulkarni (Zoology)
		Dr. Jaya pawar (Botany)
		Dr. Kiran Sonawane (Physics)
		Smt. S.K. Jangam (Microbiology)
		Smt. Swati Vilhekar (Chemistry)
10	Student's Grievances Comm -	Dr. Shubhangi Patil (Chemistry)
		Prof. Gaytri Barbde (Chemistry) Co-ordinator
		Dr. Mahadev Sonawane (Physics)
11	Gymkhana Committee	Smt. Savita Dange (Physics)
		Dr. Shekhar Jadhav (BioChemistry) Co-ordinator
		Dr. Vikas Bangade (Chemistry)
		Dr. Kiran Sonawane (Physics)
12	Campus Maintenance & Cleanliness Committee	Prof. Abhay N. Salve (Botany) Co-ordinator
		Dr. B.M. Patil (Chemistry)
		Smt. Sangeeta Jangam (Microbiology)
		Smt. Savita Dange (Physics)
		Shri. Sambhaji Sable (Office)
13	University Examination/ Evaluation CAP & Technical Committree	Shri Prashant Patil S.O.
		Prof. Gayatri Barabde (Chemistry) Co-ordinator
		Dr. Mahadev Sonawane (Physics)
		Dr. Jaya pawar (Botany)
		Dr. Utkarsha Lekhak (Biochemistry)
		Dr. Kiran Sonawane (Physics)
		Dr. Rajesh raut (Botany)
Dr. Vikas Bangade (Chemistry)		
14	Annual Report - And Maggine	Shri. Rajendra Choure (Microbiology)
		Prof. Anamika Sonawane (Physics) Co-ordinator
		Prof. Ulhas Patil (Microbiology)
		Smt. Savita Dange (Physics)
15	Canteen Committee	Shri. Rajendra Choure (Microbiology)
		Prof. Sushil Chaudhary (Zoology)
		Prof. Ratnamala Sonawane (Chemistry)
		Prof. Manisha Kulkarni (Zoology)
16	Fellowships & Scholarships	Dr. Shubhangi Patil (Chemistry)
		Dr. R.M. Patil (Chemistry) Co-ordinator
17	Gas Facility	Dr. Shekhar Jadhav (BioChemistry)
		Dr. Manohar Padul (Biochemistry) Co-ordinator
18	Hostel Admision Committee	Dr. Vikas Bangade (Chemistry)
		Prof. Ulhas Patil (Biochemistry) Co-ordinator
		Dr. B.M. Patil (Chemistry)
		Dr. Mahadev Sonawane (Physics)
		Smt. Savita Dange (Physics)
19	Computer Maintenance, Interntet, Fax,Epabx	Dr. Utkarsha Lekhak (Biochemistry)
		Dr. Salby Jose (Maths) Co-ordinator
		Dr. Rajesh raut (Botany)
		Dr. Vikas Bangade (Chemistry)

20	Ladies Common Room	Prof. Alka Chaugule (zoology) Co-ordinator Dr. Shubhangi Patil (Chemistry)
21	Research Scholars Meet	Prof. Gayatri Barabde (Chemistry) Co-ordinator Dr. Utkarsha Lekhak (Biochemistry) Dr. Mahadev Sonawane (Physics) Dr. Shubhangi Patil (Chemistry) Dr. Mihir
22	Staff Meeting & Common -Room -	Prof. Manisha Kulkarni (Zoology) Dr. Utkarsha Lekhak (Biochemistry) Smt. Swati Vilhekar (Chemistry)
23	Garden Committee -	Prof. Abhay N. Salve (Botany) Co-ordinator Dr. Jaya pawar (Botany) Dr. Rajesh raut (Botany) Shri. Rajendra Choure (Microbiology) Shri. Sambhaji Sable (Office)
24	Income Tax -	Dr. Selby Jose (Maths) Co-ordinator Dr.Sunil Singh (Maths) Dr. Utkarsha Shedbalkar (Biochemistry) Shri. Rajendra Choure (Microbiology) C.A. appointed by Institute of Science Shri. Milind More
25	NAAC & Internal Quality Assurance Cell (Statutory)	Prof. S. B. Kulkarni (Physics) Chairperson Prof. Anamika Sonawane (Physics) Prof. Rohidas Kale (Physics) Prof. Rupendra Jadhav(Microbiology) Prof. Archana Nerkar (Zoology) Prof. Gayatri Barabde (Chemistry) Prof. Abhay Salve(Botany) Dr. Rajesh Raut(Botany) Dr. Keshav Tupe (Joint Director Mumbai) Mr. Sambhaji Sable (Office) Prof. N.V. Thakkar (Alumni representative) Dr. Surendra Manjrekar (Industrialist)
26	Central Admission Comm -	Dr. Ravibabu Tayade (Chemistry) (Co-ord) Dr. Rajesh Raut(Botany) All Head of the Departments
27	National Service Scheme (NSS)	Dr. Shekhar Jadhav (Biochemistry) Smt. Swati Vilhekar (Chemistry) Dr. Shubhsgi Patil (Chemistry) Smt. Savita Dange (Physics) Dr. Vikas Bagade (Chemistry) Dr. Utkarsha Lekhak (Biochemistry)
28	District Planning & Develpment Council (DPDC)	Prof. Y.S.Malghe (Chemistry) Co-ordinator Prof. Rupendra Jadhav(Microbiology) Mr. Sahebrao Kashid(Chemistry) Dr. Kiran Sonawane (Physics) Dr. Shekhar Jadhav (Biochemistry) Dr. Ratnamala Sonawane (Chemistry)
29	UGC and CPE -	Prof. Y.S.Malghe (Chemistry) Co-ordinator Dr. Manohar Padul (Biochemistry)

30	Internal Complaint Committee Women's Empowerment And Grievances Cell (Statutory)	Dr. Archana Nerkar (Zoology) Co-ordinator
		NGO Member- Adv. Ruchi Bhagat(Public Counselor for Governance Trust)
		Smt.Sunita Dhuri (Non Teaching staff)
		Smt. Seema Nimse (Office)
31	Vigilance Committee -	Dr. Sushil choudhri (Zoology)
		Dr. Abhay Salve (Microbiology)
		Dr. Mahadev Sonawane (Physics)
32	Anti Ragging Committee(Statutory)	Dr. Ravibabu Tayade (Chemistry) (Co-ord)
		Dr. Varsha Andhare (Zoology)
		Shri. B.M. Patil (Chem.)
		Parents reprehensive
		Students representative
33	RTI Committee (Statutory)	Prof. S. B. Kulkarni (Director) Appellate Authority
		Dr. Sushilkumar Choudhri (Zoology)
		Dr. Kiran Sonawane (Physics)
		Shri. S. L. Sabale(Office Superitendent)
34	Legal Matter (Court/Mat)	Dr. Ulhas Patil (Biochemistry)
		Dr. Sushilkumar Choudhri (Zoology)
		Dr. Vishal Banewar (Chemistry)
		Shri. Rajendra Choure (Micro.)
		Dr. Shekhar Jadhav (Biochemistry)
35	Academic Calendar	Prof. Gaytri Barabde(Chemistry) Co-ordinator
		Dr. Anamika Kadam (Physics)
36	Parent Teacher Asociation	Dr. Ravibabu Tayade (Chem.) Co-ordinator
		Prof. Gaytri Barabde(Chemistry)
		Dr. Anamika Kadam (Physics)
		Dr. Manisha Kulkarni (Zoology)
		Smt. Savita Dange (Physics)
37	Ph.D Admission Commitee.	Prof. Ajay Chaudhari (Physics) – Co- ordinator
		Prof. Y.S. Malghe (Chemistry)
		Dr. Abhay Salve (Microbiology)
		Dr. Selby Jose (Maths.)
		Prof. Rupendra Jadhav (Micro)
38	Carrier Advancement Scheme CAS & API Scrutiny	Dr. Abhay Salve (Microbiology)
		Dr. Selby Jose (Maths.)
		Dr. Manohar Padul (Biochemisty)
39	University Extension Work Activities	Dr. B. M. Patil (Chemistry)
		Dr. Sunil Singh(Maths)
40	Website Maintainance & Upgradation Committee	Dr.Rajesh Raut (Botany) Co-ordinator
		Dr. Selby Jose (Maths.)
		Dr. Vishal Banewar (Chemistry)
		Shri. Rajendra Choure (Microbiology)
		Dr. Vikas Bangade (Chemistry)
41	Consultancy,MoU & Extension	Dr. Vishal Banewar (Chemistry) Co-ordinator
		Prof. Rupendra Jadhav (Micro)
		Dr. Anamika Kadam (Physics)

42	Student's Council Committee	Prof. Rupendra Jadhav (Micro)
		Dr. Kiran Sonawane (Physics)
		Dr. Ratnamala Sonawane (Chemistry)
		Dr. Jaya Pawar (Botany)
43	Technical Committee (Store)	Dr. Ulhas Patil (BioChemistry)
		Dr. Selby Jose (Maths.)
		Dr. Rajesh Raut (Botany)
		Dr. Vikas Bangde (Chemistry)
44	Fire Safety Committee	Dr. R.M. Patil (Chemistry) Co-ordinator
		Dr. Mahadev Sonawane (Physics)
		Dr. Rupendra Jadhav (Micro)
		Shri. S.B. Kashid (Chemistry)
45	Competitive Examination guidance Cell	Prof. Rupendra Jadhav (Micro) Co-ordinator
		Mr. Rajendra Choure (Micro.)
		Prof. Anamika Kadam (Physics)
		Dr. Shekhar Jadhav (BioChemistry)
46	Students Feeb-Back Committee.	Prof. Anamika Kadam (Physics)
		Dr. Shekhar Jadhav (BioChemistry)
		Dr. Shubhangi Patil(Chemistry)
47	Internal Complaint Committee Student representative Institute (Statutory)	Dr. Gayatri Barabde (Chemistry)Co-ordinator
		Dr. Archana Nerkar (Zoology)
		Prof. Ajay Choudhri (Physics)
		Dr. Mahadev Sonawane (Physics)
		Dr. Shubhangi Patil(Chemistry)
48	Write Off Committee	Shri. Sambhaji Sable
		Dr. Ulhas Patil (BioChemistry)
		Prof. Ajay Choudhri (Physics)
		Mr. Rajendra Choure (Micro.)
		Dr. Mahadev Sonawane (Physics)
		Shri. Sambhaji Sable (Office)
49	RUSA Committee (Statutory)	Shri. Prashant Patil (S.O)
		Prof. Y.S. Malghe (Chemistry) Co-ordinator
		Prof. Ajay Choudhri (Physics)
		Dr. Selby Jose (Maths.)
		Dr. Vishal Banewar (Chemistry)
		Shri. Rajendra Choure (Microbiology)
50	Teacher Mentor Scheme	Dr. Gayatri Barabde (Chemistry)Co-ordinator
		Prof. Rupendra Jadhav (Micro)
51	Earn & Learn Scheme	Dr. Ravibabu Tayade (Chem.) Co-ordinator
		Dr. Gayatri Barabde (Chemistry)
		Prof. Manohar Padul (Biochemistry)
52	Students Faculty Exchange Programme & MOUs	Prof. Ajay Choudhri (Physics) Co-ordinator
		Prof. Rupendra Jadhav (Micro)
		Dr. Vishal Banewar (Chemistry)
53	Equal Opportunity Cell	Dr. Archana Nerkar (Zoology) Co-ordinator
		Prof. Anamika Kadam (Physics)
		Dr. Shubhangi Patil(Chemistry)
		Dr. Shekhar Jadhav (BioChemistry)
54	ST SC Students Grievances Committee	Dr. Shekhar Jadhav (BioChemistry)
		Prof. Manohar Padul (Biochemistry)
55	OBC Welfare Committee	Prof. Anamika Kadam (Physics)
		Dr. Ratnamala Sonawane (Chemistry)
		Dr. Ravindra R. Kalesh (Physics)

56	Audit Para Committee	Prof. Sushilkumar Choudhri (Zoology) Co-ordinator
		Prof. Raju M. Patil (Chemistry)
		Head of the Departments
		Shri. Sambhaji Sable (Office)
		Shri. Prashant Patil (S.O)
57	PWD Work Monitoring Committee	Prof. Rohidas Kale (Physics) Co-ordinator
		Prof. Varsha Andhere (Zoology)
		Dr. Sunil Singh(Maths)
		Dr. Vishal Banewar (Chemistry)
		Mr. Rajendra Choure (Micro.)
		Dr. Shekhar Jadhav (BioChemistry)
		Dr. Ravindra R. Kalesh (Physics)
58	Placement Cell	Dr. Gayatri Barabde (Chemistry) Co-ordinator
		Dr. Selby Jose (Maths.)
		Dr. Jaya Pawar (Botany)
		Dr. Vishal Banewar (Chemistry)
59	NIRF Committee	Dr. Rajesh Raut (Botany) Co-ordinator
		Dr. Vishal Banewar (Chemistry)
		Shri. Rajendra Choure (Microbiology)
		Dr. Vikas Bangde (Chemistry)

SSD / 08/08/2023

Dr. Shrinivas Kulkarni
(I/C) Director

The Institute of Science Mumbai



THE INSTITUTE OF SCIENCE MUMBAI ALUMNI ASSOCIATION

15, Madam Cama Road, Mumbai 400 032.
Phone: 022-2844219, 2829293/4/5

“Career Failures (and Successes) in Agricultural Biotechnology” 8th February 2024

A very motivating talk by Anuradha Raman, Bayer Crop Science, St. Louis, Missouri, United States, that had the students captivated. Alumnus Prof. Sawant, Prof. Thakkar, Dr. Bhosale, Dr. Sudesh Bhagwat and Dr. Sarang, attended the session along with students from Botany, Biotechnology & EVS Departments.

Dr Homi Bhabha State University

Department of Botany
The Institute of Science, Mumbai
in association with
Institute of Science Alumni Association (ISAA)

Cordially invites all for a talk by



Anuradha Raman

Digital Transformation Lead, Global Digital Manufacturing,
Bayer Crop Science, St. Louis, Missouri, United States.

on

“Career Failures (and Successes) in Agricultural Biotechnology”

Date: Thursday, 8th February 2024, 2:00 pm
Venue: Auditorium, 2nd Floor.

Prof. Aparna Saraf
Head, Dept. of Botany
Secretary, ISAA

Prof. N.V. Thakkar
President, ISAA

Prof. S.B. Kulkarni
I/C Director



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Phone: 022-2844219, 2829293/4/5

“Surface Analysis -New Opportunities for Advanced Materials Characterization” 8th February 2024

Alumnus Dr. Sankar Raman, Retired - Surface Analysis Business Development executive, St. Louis, Missouri, United States, conducted a session on “Surface Analysis - New Opportunities for Advanced Materials Characterization”. It was a well-articulated talk giving insights into various techniques in the field of surface analysis and its application.

Dr Homi Bhabha State University

Department of Physics
The Institute of Science, Mumbai
in association with
Institute of Science Alumni Association (ISAA)

Cordially invites all for a talk by



Dr. Sankar Raman

Retired - Surface Analysis Business Development executive
St. Louis, Missouri, United States.

on

“Surface Analysis - New Opportunities for Advanced Materials Characterization”

Date: Thursday, 8th February 2024, 12:30 pm
Venue: Auditorium, 2nd Floor.

Prof. Aparna Saraf
Secretary, ISAA

Prof. N.V. Thakkar
President, ISAA

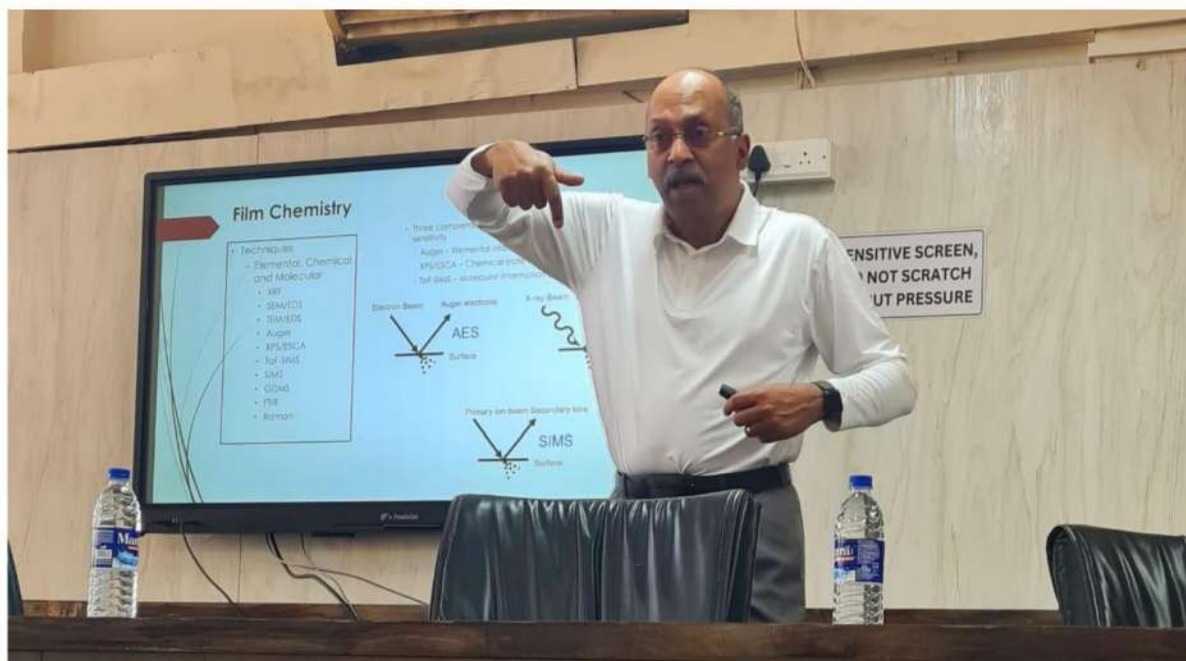
Prof. R.B. Kale
Head, Dept. of Physics

Prof. S.B. Kulkarni
I/C Director



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Phone: 022-2844219, 2829293/4/5



Dr. Sankar Raman giving insights in the field of Surface Analysis.....



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“Indoor Pollution and Phytoremediation”

21st February 2024

An interactive talk by Dr. S.C. Sharma, Ex- Scientist, CSIR-National Botanical Research Institute, Lucknow, on “Indoor Pollution and Phytoremediation” was organised on 21st February 2024. 36 students attended the talk.

Dr Homi Bhabha State University

Department of Botany

The Institute of Science, Mumbai

in association with

The Institute of Science Mumbai Alumni Association (ISMAA)

Cordially invites all for a talk by



Dr. S.C. Sharma

Ex- Scientist, CSIR-National Botanical Research Institute, Lucknow.

on

“Indoor Pollution and Phytoremediation”

Date: Wednesday, 21st February 2024, 3:00 pm

Prof. Aparna Saraf
Head, Dept. of Botany
Secretary, ISMAA

Prof. N.V. Thakkar
President, ISMAA

Prof. S.B. Kulkarni
I/C Director



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Phone: 022-2844219, 2829293/4/5



Glimpses of the talk....

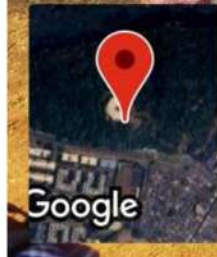


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Amidst the greens... with alumnus Dr Lattoo at Mahim Nature Park 24th February 2024

Alumnus Dr. C.S. Lattoo conducted a short excursion for Botany students. It was an experience to remember and cherish. The subject expertise awed young minds and his enthusiasm motivated them.



Mumbai, Maharashtra, India

Maharashtra Nature Park, Sion Bandra Link Road, Dharavi,
opp. Bus Depot, Mahim Nature Park, Dharavi, Mumbai,
Maharashtra 400017, India

Lat 19.052111°

Long 72.86294°

24/02/24 08:59 AM GMT +05:30



THE INSTITUTE OF SCIENCE MUMBAI ALUMNI ASSOCIATION

15, Madam Cama Road, Mumbai 400 032.
Phone: 022-2844219, 2829293/4/5

Vidnyan Sanstha Ratna Awards & Annual Alumni Get-Together 16th March 2024

The Institute of Science, Mumbai
Lead Institution

Dr. Homi Bhabha State University (HBSU)

The Institute of Science Mumbai Alumni Association (ISMAA)

Announces

Vigyan Sanstha Ratna Awards

To

Dr. Yazdi Italia

and

Prof. Sharad Chaphekar

The Awards will be presented

at the

Annual Alumni Get-Together

Chief Guest

Dr. Nipun Vinayak IAS
Director, PM-USHA, Maharashtra

Prof. Rajanish Kamat
Hon'ble Vice Chancellor, HBSU
will preside

Date : Saturday, 16th March, 2024

Venue : Room 36, The Institute of Science, Mumbai

All are cordially invited

Prof. Aparna A. Saraf
Hon. Secretary, ISMAA

Prof. N. V. Thakkar
President, ISMAA

Prof. S. B. Kulkarni
Vc Director, The Institute of Science

Prof. N. V. Thakkar
Chairman

Dr. Aparna A. Saraf
Hon. Secretary



Dr. Homi Bhabha State University

The Institute of Science, Mumbai

Department of Botany

Annual Report 2023-24

Vikasit Bharat @ 2047 – Empowering Young Scientists

9th January 2024



The Institute of Science Mumbai Alumni Association (ISMAA) in association with Department of Botany and Bharucha School of Ecology, Mumbai conducted a symposium on Vikasit Bharat @ 2047–Empowering Young Scientists on 9th January 24.

Alumnus Prof. Sharad Chaphekar, along with his 9 PhD students, published a booklet "A Botanist for Degraded Environment - ABDEN" consisting of 12 selected research articles highlighting the environmental concerns. The aim of the program was to inspire young environmentalists to adopt scientific approach in dealing with environmental issues. It was attended by 78 students and alumni.

Short Excursion to Jijamata Udyan: 3rd February 2024



Students from Botany Department visited 27th Flower, Fruits and Vegetable Exhibition organised by BMC on 3rd February 2023 at Jijamata Udyan, Byculla, Mumbai. 20 Students accompanied Prof. Aparna Saraf for the same.

“Career Failures (and Successes) in Agricultural Biotechnology”

8th February 2024



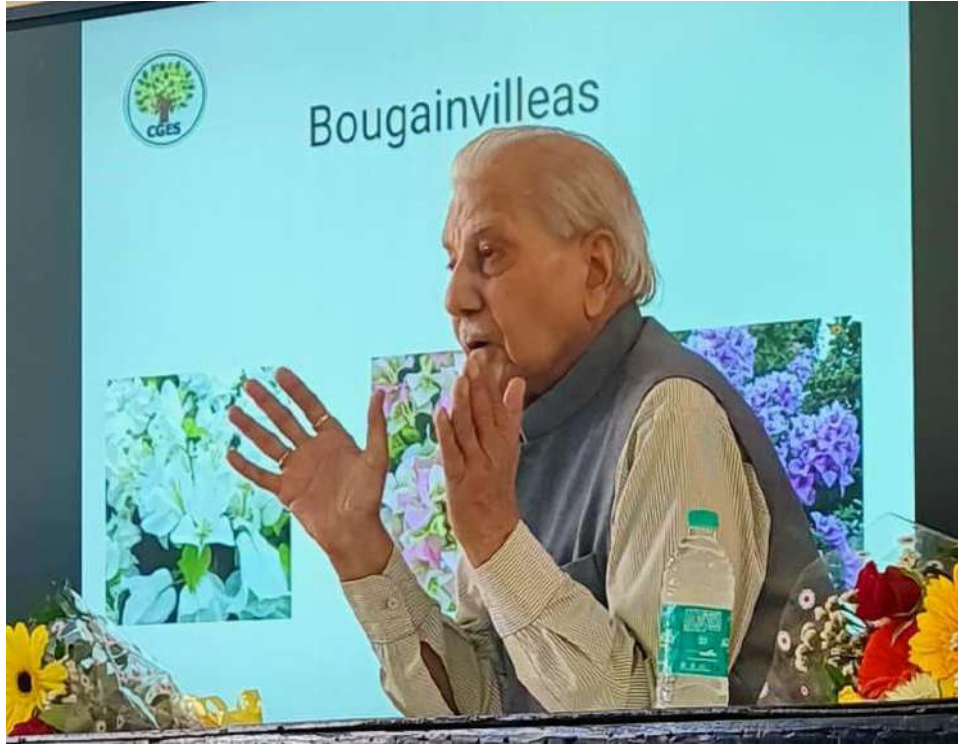
The Institute of Science Mumbai Alumni Association (ISMAA) in association with Department of Botany organized a very motivating talk by Anuradha Raman, Bayer Crop Science, St. Louis, Missouri, United States, that had the students captivated. 45 students were present for the talk.

One-Day Industrial Visit to Nishant Aromas Pvt Ltd, Palghar 10th February 2024



**One-Day industrial visit to Nishant Aromas Pvt Ltd, Palghar was organized on 10th February, 2024 .
12 students of M. Sc Part I & II visited the industry with Prof. Umesh Kakde and Dr. Jaya Pawar.**

“Indoor Pollution and Phytoremediation” 21st February 2024



The Institute of Science Mumbai Alumni Association (ISMAA) in association with Department of Botany organized an interactive talk by Dr. S.C. Sharma, Ex- Scientist, CSIR-National Botanical Research Institute, Lucknow, on “Indoor Pollution and Phytoremediation” on 21st February 2024. 32 participants attended the session.

Amidst the greens... with alumnus Dr Lattoo at Mahim Nature Park 24th February 2024



Alumnus Dr. C.S. Lattoo conducted a short excursion for 21 Botany students. It was an experience to remember & cherish. The subject expertise awed young minds & his enthusiasm motivated them. Prof. Aparna Saraf accompanied the students.

Annual Work Seminar for PhD Students 7th February & 7th March 2024



Online Annual Work Seminar: 7th February 2024

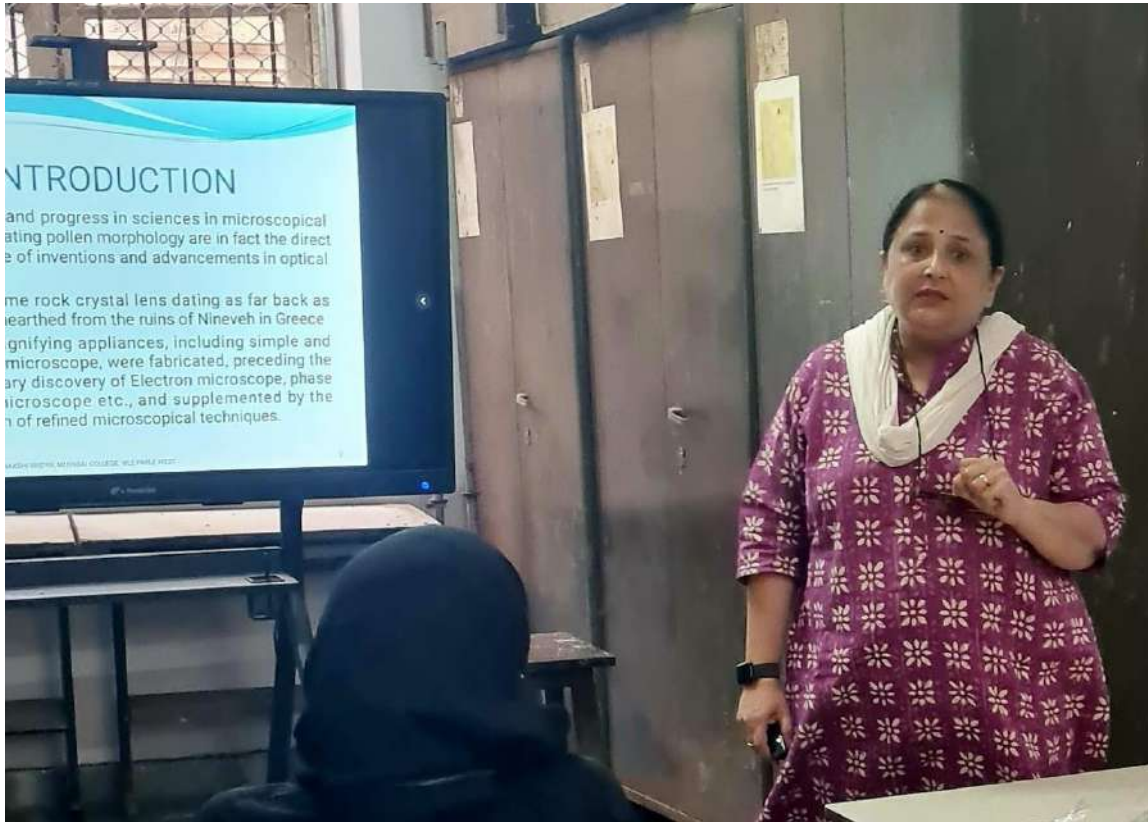


Offline Annual Work Seminar: 7th March 2024

Annual Work Seminar for PhD students were conducted on 7th February & 7th March 2024.
Prof. Sagarika Damle & Prof. Rupendra Jadhav were subject expert for the same.

Insights in the field of Palynology

23rd February 2024



A talk on “Insights in the field of Palynology” was conducted on 23rd February 2024. Prof. Meenakshi Vaidya conducted the session for MSc Part-I Students.

One Day Interactive Session on Instrumentation Facility for Biotechnology Students, Kirti College at the department 4th March 2024



A One Day Interactive Session on Instrumentation Facility was conducted for Biotechnology Students of Kirti College at the department on 4th March 2024. Research Scholar Neha Mourya conducted the session. Alumnus Saurabh Bhogle, Faculty at Kirti College, accompanied 22 students.

Paleobotany: A peep into the history

14th March 2024



A talk on “Paleobotany: A peep into the history” was conducted on 14th March 2024. Prof. Nitin Labhane conducted the session for MSc Part-I Students.

One Day Interactive Session on Instrumentation Facility at the Department for Botany Students, SSR College, Silvasa 18th March 2024



A One Day Interactive Session on Instrumentation Facility was conducted for FY & SY Botany Students of SSR College at the department on 18th March 2024. Research Scholars Parvindar Saha, Harshala Naik, Akshay Chavan & Neha Mourya conducted the session. 55 students were accompanied by Dr. Swati Kamthan, HoD, Botany.

Research activities of PhD students, Department of Botany

Sr. No	Name	Event	Topic	Venue	Date
1	Divya Lobo Padinjarekutt	Paper Presentation in International Conference "Recent Advances in Sciences"	HPTLC Method Validation and Development for Quantification of Biomarker β -Sitosterol and Betulinic Acid in the Leaves, Stem and Roots of <i>Spermadictyon suaveolens</i> Roxb.	Online	29 th April 2023
2	Divya Lobo Padinjarekutt	Paper Publication in Biomedical Research Journal	HPTLC Method Validation and Development for Quantification of Biomarker β -Sitosterol and Betulinic Acid in the Leaves, Stem and Roots of <i>Spermadictyon suaveolens</i> Roxb.	Online	17 th January 2024
3	Divya Lobo Padinjarekutt	Poster Presentation in International Conference "Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024" [ICFEI@2024]	'Pharmacognostic Studies and Physicochemical Studies for the Establishment of Quality Parameters of Leaves, Stem and Root of <i>Spermadictyon suaveolens</i> Roxb.'	The Institute of Science, Dr. Homi Bhabha State University, Mumbai in collaboration with IQAC & National Gallery of Modern Art, Mumba	28 th and 29 th February 2024
4	Divya Lobo Padinjarekutt Nikki Huria Neha mourya Anam Ansari	Seminar by Anuradha Raman on	"Career Failures (and successes) in Agricultural Biotechnology"	The Institute of Science.	8 th February 2024

Research activities of PhD students, Department of Botany

Sr. No	Name	Event	Topic	Venue	Date
5	Nikki Huria	Paper Presentation in International Conference "Recent Advances in Sciences"	Establishment of Quality Parameters in the Leaf Extract of <i>Morus nigra</i> L.	Online	29 th April 2023
6	Nikki Huria	Paper Publication in Biomedical Research Journal	Establishment of Quality Parameters in the Leaf Extract of <i>Morus nigra</i> L.	Online	17 th January 2024
7	Nikki Huria Neha Mourya Anam Ansari	Symposium	"Viksit Bharat @2047 -Empowering Young Scientists"	The Institute of science, Mumbai Department of Botany In collaboration with The Institute of science, Mumbai Alumni Association & Bharucha School of Ecology	9 th Jan 2024
8	Nikki Huria	Paper Presentation in International Conference "Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024" [ICFEI@2024]	Pharmacognostic and Phytochemical Studies for the Establishment of Quality Parameters of Leaf of <i>Morus alba</i> L., and <i>Morus indica</i> L.	The Institute of Science, Dr. Homi Bhabha State University, Mumbai in collaboration with IQAC & National Gallery of Modern Art, Mumbai	28 th and 29 th February 2024

Research activities of PhD students, Department of Botany

Sr. No	Name	Event	Topic	Venue	Date
9	Aaditi Tamhane	One Week Course Work on	Research & Publication Ethics	Organised By HBSU, Mumbai	01 st April 2023 to 05 th April 2023
10.	Aaditi Tamhane	Certificate Course on	“Spectroscopy and Chromatography techniques”	Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore	24 th to 28 th April 2023
11	Aaditi Tamhane	Online Certification course on	Biophysical Methods and Analytical Techniques	Organised By Microbiologists Society, India	12 th to 18 th October 2023
12	Aaditi Tamhane	Online Certification course on	Mathematics in Biological Sciences: Calculations and Applications	Organised By Microbiologists Society, India	30 th October to 5 th November 2023
13	Aaditi Tamhane	Workshop on	Document Preparation using Latex	Organised By A2Z EduLearning Hub LLP	16 th , 17 th and 18 th November 2023
14	Aaditi Tamhane	Workshop on	Research Article Writing and Publishing	Organised By A2Z EduLearning Hub LLP	03 rd , 04 th and 05 th January 2024
15	Aaditi Tamhane	Conclave on Rural Livelihood development	Centre for Rural Development and Technology	At IIT, Indore	05 th and 06 th January 2024
16	Aaditi Tamhane	Online Certification course on	Fundamentals of Research Methodology	Organised By A2Z EduLearning Hub LLP	08 th , 09 th and 10 th February 2024

Research activities of PhD students, Department of Botany

Sr. No	Name	Event	Topic	Venue	Date	Sr. No
17.	Neha Mourya	Poster Presentation in International Conference "Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024" [ICFEI@2024]	"A simple method to obtain Ursolic acid from some Lamiaceae members".		The Institute of Science, Dr. Homi Bhabha State University, Mumbai in collaboration with IQAC & National Gallery of Modern Art, Mumbai	28 th and 29 th February 2024
18.	Neha Mourya Anam Ansari	Seminar	Seminar on " Indoor pollution and Phytoremediation" by S.C. Sharma(Ex-Scientist, CSIR)		The Institute of science, Mumbai Department of Botany In collaboration with The Institute of science, Mumbai Alumni Association	21 st February 2024
19.	Neha Mourya Anam Ansari	One day workshop	A workshop on " Springer Nature- Scientific writing and book publishing" by Dr. Swati Meherishi (Editorial director)		The institute of science	13 th September 2023

Research activities of PhD students, Department of Botany

Sr. No	Name	Event	Topic	Venue	Date
20.	Harshala Naik	One day Hands on Workshop	One day Hands on Workshop on "Techniques in molecular Diagnostics (ELISA)"	G.M.Khalsa College,Matunga	12 June 2023
21.	Harshala Naik	Book chapter	Nanotechnology for bioremediation of industrial waste water	Springer Nature	05/04/2023
22.	Harshala Naik	Book Chapter	Nanotechnology Based photocatalytic Degradation of pharmaceutical	Springer Nature	19/07/2023
23.	Harshala Naik	Book chapter	Biomaterials used in drug delivery system.	Springer Nature	25/10/2023
24.	Harshala Naik	Reserach Article	Synthesis of a silica Matrix with ZnO nanoparticles for fabrication of recyclable photo degradation system to eliminate methylene blue dye.	Green processing and synthesis volume 12,Pages20230157 Publisher De Gryter	12/01/2023
25.	Harshala Sandip Naik	Conference on "Catalyzing Research & Technology for sustainable Future.	Synthesis of Ag-Doppeed ZnO and there Antibacterial and anti-cancer Activities.	ICT Mumbai	September 14-16,2023
26.	Harshala Sandip Naik	Conference on "Transdisciplinary international Conference on Science and Sustainable Future"	Facile Synthesis of Rutine- functional Zed silver Gold Nanoparticles	Institute of Science Mumbai	28-29 February 2024

Research activities of PhD students, Department of Botany

Sr. No	Name	Event	Topic	Venue	Date
27.	Parvindar Sah	Conference on Fundamental and Application of Nanotechnology (ICFAN).	Research paper presented on One pot synthesis of Paclitaxel Functionalized Gold Nanoparticles.	C.T.THOMAS COLLEGE CHENNAI	5 January 2024
28.	Parvindar Sah	International conference on "Current state of Chernozems."	Degradation of chloropyrifos using silica coated Zn nanoparticles.	Biotechnology and biology of southern Federal University Russia.	17-19 September 2023
29.	Parvindar Sah	One day Hands on Workshop	One day Hands on Workshop on "Techniques in molecular Diagnostics (ELISA)"	G.M.Khalsa College, Matunga	12 June 2023
30.	Parvindar Sah	Book chapter	Nanotechnology for bioremediation of industrial waste water	Springer Nature	05/04/2023
31.	Parvindar Sah	Book Chapter	Nanotechnology Based photocatalytic Degradation of pharmaceutical	Springer Nature	19/07/2023
32.	Parvindar Sah	Book chapter	Biomaterials used in drug delivery system.	Springer Nature	25/10/2023
33.	Parvindar Sah	Reserach Article	Synthesis of a silica Matrix with ZnO nanoparticles for fabrication of recyclable photo degradation system to eliminate methylene blue dye.	Green processing and synthesis volume 12, Pages 20230157 Publisher De Gryter	12/01/2023
34.	Parvindar Sah	Conference on "Catalyzing Research & Technology for sustainable Future.	Synthesis of Ag-Doped ZnO and there Antibacterial and anti-cancer Activities.	ICT Mumbai	September 14-16, 2023
35.	Parvindar Sah	Workshop on proteomics and molecular docking from scratch.	Online mode	-	12-13 october 2023

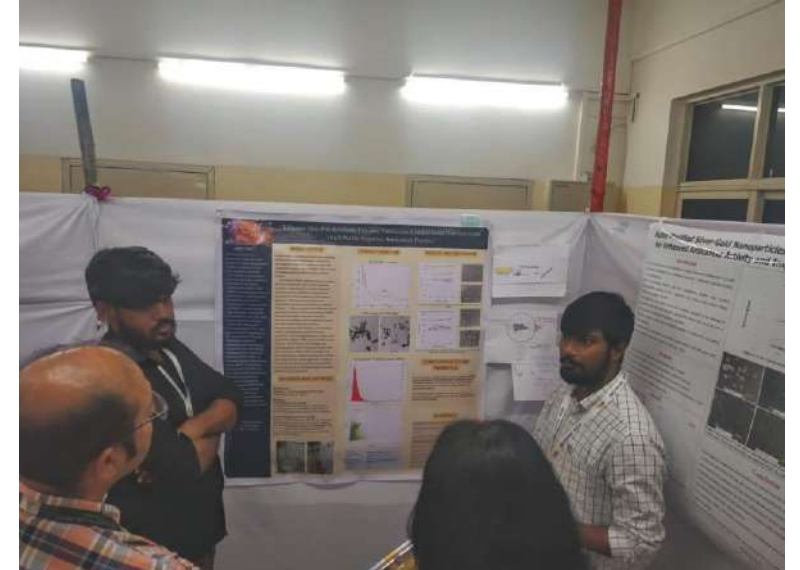
Research activities of PhD students, Department of Botany

Sr. No	Name	Event	Topic	Venue	Date
36.	Anam Ansari	Poster Presentation in International Conference "Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024" [ICFEI@2024]	"Investigating Fungal Biodegradation of Low-Density Polyethylene: A Sustainable Approach for Plastic Pollution Mitigation"	The Institute of Science, Dr. Homi Bhabha State University, Mumbai in collaboration with IQAC & National Gallery of Modern Art, Mumbai	28 th and 29 th February 2024
37.	Anam Ansari	Seminar	Seminar on "Cytotaxonomy: An underexplored discipline of western ghats of India" By Dr. Manoj Lekhak	Department of Biochemistry The Institute of Science, Mumbai	29 th August 2023
38.	Anam Ansari	Seminar	Seminar on "Intellectual Property Rights (IPR) and their key components – comprehensive overview" by Adv. Abhishek Vora and Adv. Prajakta Kotkar	The Institute of Science, Dr. Homi Bhabha State University, Mumbai	30 th August 2023
39.	Khan Ayesha	Paper Presentation in International Conference "Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024" [ICFEI@2024]	Evaluating Ganoderma lucidum adsorption capacity for mercury removal in water	The Institute of Science, Dr. Homi Bhabha State University, Mumbai in collaboration with IQAC & National Gallery of Modern Art, Mumbai	28/02/24-29/02/24

Research activities of PhD students, Department of Botany

Sr. No	Name	Event	Topic	Venue	Date
40.	Sharma Sheetal	One Week Course Work on	Research & Publication Ethics	Organised By HBSU, Mumbai	01 st April 2023 to 05 th April 2023
41.	Sharma Sheetal	Paper presentation in an one day "International conference of G20 summit on Environmental Sustainability and Bioenzymes	"Conservation of the critically endangered plant A. Marmelos through tissue culture and its secondary metabolite production"	Organised by Department of Biotechnology and Academy for administrative careers, University of Mumbai in association with Innovations in Biosciences and Bioenzyme entrepreneurs Academy of India	21 st April 2023
42.	Sharma Sheetal	4 weeks course on Mooc	"Let us fight AMR: an awareness about antimicrobial resistance"	Organised under the Aegis of UNESCO's open education for better World Initiative by Department of Microbiology, Ramnarian Ruia Autonomous College, Mumbai.	23 rd May 2023 to 07 th May 2023
43.	Sharma Sheetal	Poster presentation in a National Conference on Environment Sustainability-Scientific, Economics and Social Implications	"Analysis of Secondary Metabolite Production in A. Marmelos Tissue Culture and Elicitation Techniques"	Organised by Royal College of Arts, Science and Commerce, Mira road (E)	10 st February 2024
44.	Sharma Sheetal	Poster Presentation in International Conference "Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024" [ICFEI@2024]	"Optimizing A. Marmelos Tissue Culture: Sterilization, hormonal Combinations, and Permeabilization strategies for enhanced Secondary Metabolite Production"	The Institute of Science, Dr. Homi Bhabha State University, Mumbai in collaboration with IQAC & National Gallery of Modern Art, Mumbai	28 rd Feb 2023 to 29 th Feb 2023

Research activities of M.Sc. Students at The Department



Abhishek Nishad & Atul Singh of M.Sc. Part-II students from the department have won the First Prize at The Intercollegiate Research Scholar Meet, JIGYASA-2024, organised by SIES College, Mumbai

GATE 2024



Shivang Dubey has qualified the GATE Examination for second consecutive time.

**Transdisciplinary International Conference on
“Science and Sustainable Future: Envisioning India @2024”
[ICFEI@2024]
28th & 29th Feb, 2024
National Science Day Celebration By
Dr. Homi Bhabha State University, Mumbai
The Institute of Science, Mumbai**

S.N.	Activity	Particulars
1	Theme	“Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024 ”
2	Dates	28 th & 29 th Feb, 2024
3	Fees/registration charges	200 Rs (Two Hundred rupees only)
4	Venue	National Gallery of Modern Art (NGMA), Sir C. J. Hall (Institute of Science Building), Fort, Mumbai-32
5	Target group	Research Students (Teachers, Ph.D. Students, MSc. Research project students,)
6	Number of students registered	204 Online mode: 96 Offline mode: 108
7	Number of beneficiaries	204
8	Topics covered	Various Research Themes by Students
9	Issue of certificates	Certificates and E-certificates were issued to all beneficiaries
10	Convenors	Prof. Dr. Anamika V. Kadam, Dr. Rajesh W. Raut
11	Co-Convenors	Dr. Utkarsha Lekhak Dr. Shubhangi Patil
12	Inauguration ceremony	Inaugural Talk by Chief guest- Dr. Kailash Rustagi (Ex-Director, CAT, Indore) Presidential Talk by Prof. Rajanish Kamat (Hon’ble Vice chancellor of HBSU) Plenary Talk by Dr. Pankaj Poddar (Senior Principal Scientist, NCL Pune)
13	Key note speaker	Dr. Pankaj Poddar (Senior Principal Scientist, NCL, Pune) Dr. Selvaraj Kaliaperumal (Senior Principal Scientist, NCL,Pune) Dr. Meng-Fang Lin, Asst. Prof., Ming Chi University of Tech, Taiwan Dr. Nanaso Thorat (Research Scientist, University of Oxford, England) Dr. Sawanta Mali, Associate Research Professor, Chonnam National University, Gwangju 61186, South Korea

The Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024 (ICFEI@2024) held on February 28th and 29th, 2024, at The Institute of science, Dr. Homi Bhabha State University Mumbai, served as a crucial platform for fostering interdisciplinary collaboration and dialogue on pressing scientific and sustainability issues. With the support of esteemed partners such as the National Gallery of Modern Art, Mumbai, and the Ministry of Culture, Government of India, the conference was catalyzed and supported by National Council for Science and Technology Communication, DST, Delhi, Govt. Of India, Rajiv Gandhi Science and Technology Commission, Government of Maharashtra And Golden Jubilee Trust fund, Institute of Science Mumbai. Conference was also supported financially by Eppendorf India, IR Tech India, Icon Labs, AllianzBio and Steps Computers

The conference highlighted the paramount importance of research in addressing complex challenges and envisioning a sustainable future for India. Through presentations, panel discussions, and policy forums, participants explored innovative solutions to pressing issues such as environmental degradation, climate change, and resource depletion. By transcending disciplinary boundaries, researchers, policymakers, and practitioners collaborated to generate actionable insights and recommendations that can inform policy formulation and drive positive change.

Research students emerged as key beneficiaries of the conference, gaining invaluable opportunities for knowledge enhancement, professional development, and networking. Exposure to cutting-edge research, interaction with seasoned scholars, and engagement with policymakers inspired and motivated students to pursue excellence in their academic and research endeavors. Moreover, the conference facilitated access to research opportunities, mentorship, and funding avenues, empowering students to contribute meaningfully to the advancement of science and sustainability in India and beyond.

Activities Held in Conference

Day 1: Wednesday, Date: 28th February 2024

Time	Program
9:30 am -10:25 am	Registration and distribution of kit
10.30 am to 11.15 am	Inauguration ceremony Inaugural Talk by Chief guest- Dr. Kailash Rustagi (Ex-Director, CAT, Indore) Presidential Talk by Prof. Rajanish Kamat (Hon'ble Vice chancellor of HBSU) Plenary Talk by Dr. Pankaj Poddar (Senior Principal Scientist, NCL, Pune)
11.15 am to 11.30 am	Tea Break
11.30 am to 12.10 pm	Key note speaker - Dr. Pankaj Poddar (Senior Principal Scientist, NCL, Pune)
12.15 pm to 01.00 pm	Key note speaker - Dr. Selvaraj Kaliaperumal (Senior Principal Scientist, NCL, Pune)
01.00 pm to 2.00 pm	Lunch Break
2.00 pm to 3.00 pm	Key note speaker – Dr. Meng-Fang Lin, Asst. Prof., Ming Chi University of Technology, Taiwan
3.00 pm to 3.50 pm	Key note speaker - Dr. Nanaso Thorat (Research Scientist, University of Oxford, England)
4.00 pm to 4.15 pm	Tea Break
4.15 pm to 5.00 pm	Oral presentation sessions

Day 2: Thursday, Date: 29th February 2024

Time	Program
10:00 am -10:30 am	High Tea
10.30 am to 11.15 am	Key note speaker - Dr. Sawanta Mali, Associate Research Professor, Brain Pool (former KRF) fellow, DSK fellow, An outstanding overseas young researcher, Polymer Energy Materials Laboratory, Department of Advanced Chemical Engineering Chonnam National University, Gwangju 61186, South Korea
11.15 am to 1.00 pm	Oral presentation sessions
11.15 am to 01.00 pm	Poster presentation sessions
01.00 pm to 2.00 pm	Lunch Break
2.00 pm to 3.00 pm	Felicitation ceremony (Feedback and certificate distribution)
3.00 pm to 3.30 pm	Tea Break

PROGRAMME CHAIRS:

Prof. Shrinivas Kulkarni, I/C Director, The Institute of Science, Mumbai

Dr. Vasant B. Helavi Reddy, Principal, Elphinstone College, Mumbai

Dr. Shrinivas Dhure, Principal, Sydenham College, Mumbai

Dr. Sunil Sonawane, Principal, Secondary Training College, Mumbai

CONFERENCE CHAIR: Prof. Vilas Padhye, Registrar, HBSU, Mumbai

Attendance Report

Institute of science

SR.	NAME OF STUDENT	RESEARCH TITLE	AMT P.	SIGNATURE
1	Komal sanjay gangawane	NA	200/-	
2	AAFREEN KHALID MIR	Effect of Temperature on Zinc Oxide using I	200/-	
3	Sarah Pereira	Green route synthesis of bioethanol from sug	200/-	
4	Komal Narendra Mandavka	NA	200/-	
5	Pallavi Satish Chaubey	Sachinkumar Jayprakash	200/-	
6	Sanchee Arun Sable	Chitinases from the fungus isolated from wo	200/-	
7	Maeza Dildar Lambe	NA	200/-	
8	Yash Rajesh Tijare	Electrodeposited Cobalt Oxide on Stainless S	200/-	
9	Mamta Subhash Pimpale	Low temperature synthesis, characterization,	300/-	
10	Prof. Alka Krishnrao Choug	Biochemistry of butterflies---7	300/-	
11	Bhimarao M Patil	Synthesis and characterization of Uranium d	300/-	
12	Aniket Balasaheb Dube	NA	200/-	
13	Deepti Vijay Ghodekar	BIOPLASTIC: Agar agar is used to synthesiz	200/-	
14	Dipali Balaji Aade	BIOSYNTHESIS OF CuO AND ZnO NANOC	200/-	
15	Miss. Minakshi Nathubhai	BIOSYNTHESIS OF CuO AND ZnO NANOC	200/-	
16	Yash Rajesh Tijare	Electrodeposited Cobalt Oxide on Stainless S	200/-	
17	Khan Ayesha Mohammad S	In-depth study of annealing effect on electro	300/-	
18	Nikhat Nasruddin Shaikh	Effect of temperature on Ni-CoO composite	200/-	
19	Nikki Huria	Pharmacognostic and Phytochemical Studies	200/-	

42	Divya Lobo Padinjarekutt	Pharmacognostic and photochemical studies	200/-	
43	Mrs. Swati Dinkar Vilhekar	NA	300/-	
44	Vibhuti Anil kamble	Biosorption of lead using egg shell powder	200/-	
45	Ankush Harichandra Gavan	Unlocking the effect of annealing on the elec	200/-	
46	Harshala Sandip Naik	NA	200/-	
47	Singh Priti	Green synthesis of selenium nanoparticles by	200/-	
48	Mr. Amar Laxman Jadhav	NA	200/-	
49	SUCHITRA NIRUDAS SA	Hydrothermally synthesized Fe2O3 on Stainl	300/-	
50	Satish Govindlal Gupta	NA	200/-	
51	Sneha Akshay Ganpule	NA	200/-	
52	Sakshi Vinod Dudhani	Mitigating sublime nature of Camphor via Pi	200/-	
53	Bhimarao M. Patil	Low temperature synthesis, characterization,	300/-	
54	Bhimarao M. Patil	An efficient removal of methylene blue dye b	300/-	
55	Dr. Shekhar B. Jadhav	NA	300/-	
56	Ganesh Mahesh Patil	Green Synthesis of Silver Nanomaterials : El	200/-	
57	Patil Mansi Raendra	Green Synthesis of Silver Nanomaterials : E	200/-	
58	Vrshali Naresh Jadhav	Influence of molarity on Crystal Structure, M	200/-	
59	Miss. Saloni Rajan Mbavar	Biosynthesis of silver nanoparticles from Mu	200/-	
60	PRATIK BHAGWAN JAG	Synthesis of Calcium Carbonate encapsulated	200/-	
61	SHARMA SHEETAL DIN	"Optimizing Aegle marmelos Tissue Culture:	200/-	
62	Rajendra Gangadhar Chour	"Mining for Nodule specific Cysteine Rich(N	200/-	
63	Abhishek Deepak Dhumal	Development and Validation of Stability Indi	300/-	

✓ 104	Huda Shaikh	St. Xavier's College Autonomous Mar	Pedilanthus tithymalo	200/-	<i>Handwritten signature</i>
✓ 105	Hera Razi	Sunrise University Alwar Rajasthan	NA	200/-	<i>Handwritten signature</i>
106	Dr. Sandeep Natthuji Bande	Tai Golwalkar Mahavidyalaya Ramtek	NA	300/-	
107	Dr. Krishnakant T. Waghmode	The D G Ruparel College Mumbai	1. Synthesis, character	300/-	
108	Mr. Shailesh S. Gurav	The VIVA College, Virar	New 2-Chloroimidazo	200/-	
✓ 109	Varda Ninad Mane	University of Mumbai	NA	200/-	<i>V. Mane</i>
110	SYED HABIBUDDIN SYED ABED ALI	University of Mumbai	Facile green synthesis	200/-	
111	NAGARE TUSHAR TUKARAM	UNIVERSITY OF MUMBAI.MUMBAI	NA	200/-	
112	KU DRAUPADI MAHADEORAO DHAGE	Vidya Bharti College Amravati 44460	Hydrilla app - Fresh w	300/-	
113	Muktai Manoj Aote	Visvesvaraya National Institute of Tec	Influence of Ca dopin	200/-	
114	PANCHASARA YASH KANTILAL	VIVA COLLEGE	POWER GENERATIO	200/-	
115	Dr.Hemangi Ashutosh Raut	VIVA College of Arts, Commerce and	Power Generation Us	300/-	
116	PRADIP NAMDEO CHOGALE	WCS-INDIA	Overview of Sustaina	300/-	
✓ 117	Sushama Manohar Nikam	Y.C.I.S.Satara	Effect of SILAR cycle	200/-	<i>Handwritten signature</i>
✓ 118	Shravani Arvind Jagtap	Yashwantrao chavan Institute of scienc	No	200/-	<i>S.J. Jagtap</i>
✓ 119	More sakshi Laxman	Yashwantrao chavan institute of scienc	No	200/-	<i>Handwritten signature</i>
✓ 120	Purva Santosh Bedake	YCIS, Satara	NA	200/-	<i>Handwritten signature</i>
✓ 121	Mahesh Riyaz Waghavande	Bhavans College			<i>Deleted</i>
✓ 122	Narash Bhatia	SIT - Kopar Punjab.			<i>Deleted</i>
✓ 123	Tanni Shinde.	YCIS - Satara.	NA	200	<i>Deleted</i>
✓ 124	Kshitiya Chavah	YCIS - Satara.	NA	200	<i>Deleted</i>
✓ 125	Shaulch Rahilah	IOS - physics	oral	200	<i>Handwritten signature</i>

SR.NO.	Name of the participant	Name of College/University	Title of your abstract	Registr	SIGNATURE
✓ 1	Ekti Kumari	Amity University	Effect of algal extract	200/-	<i>Handwritten signature</i>
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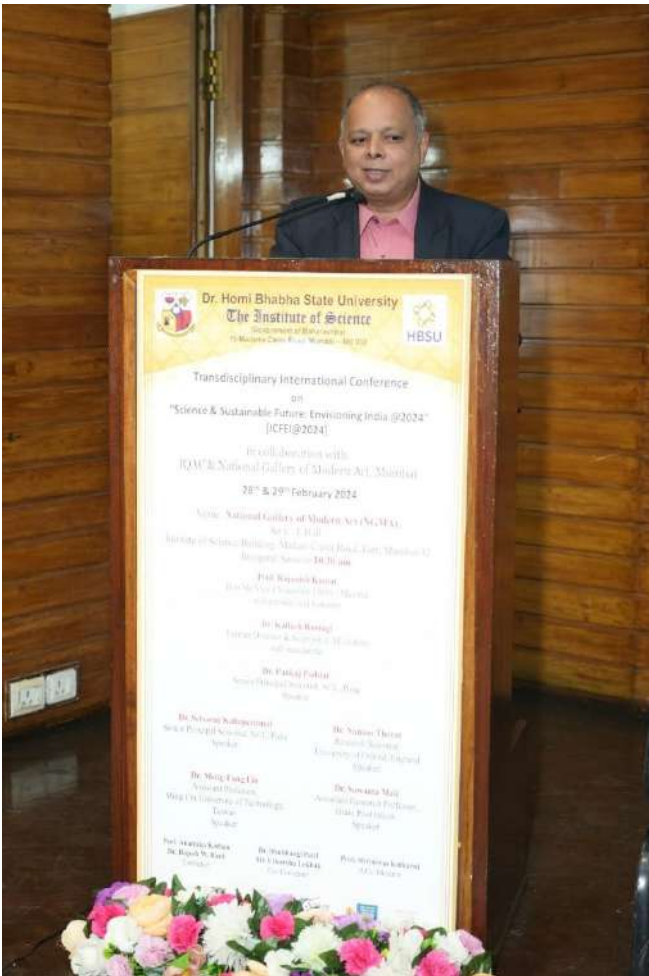
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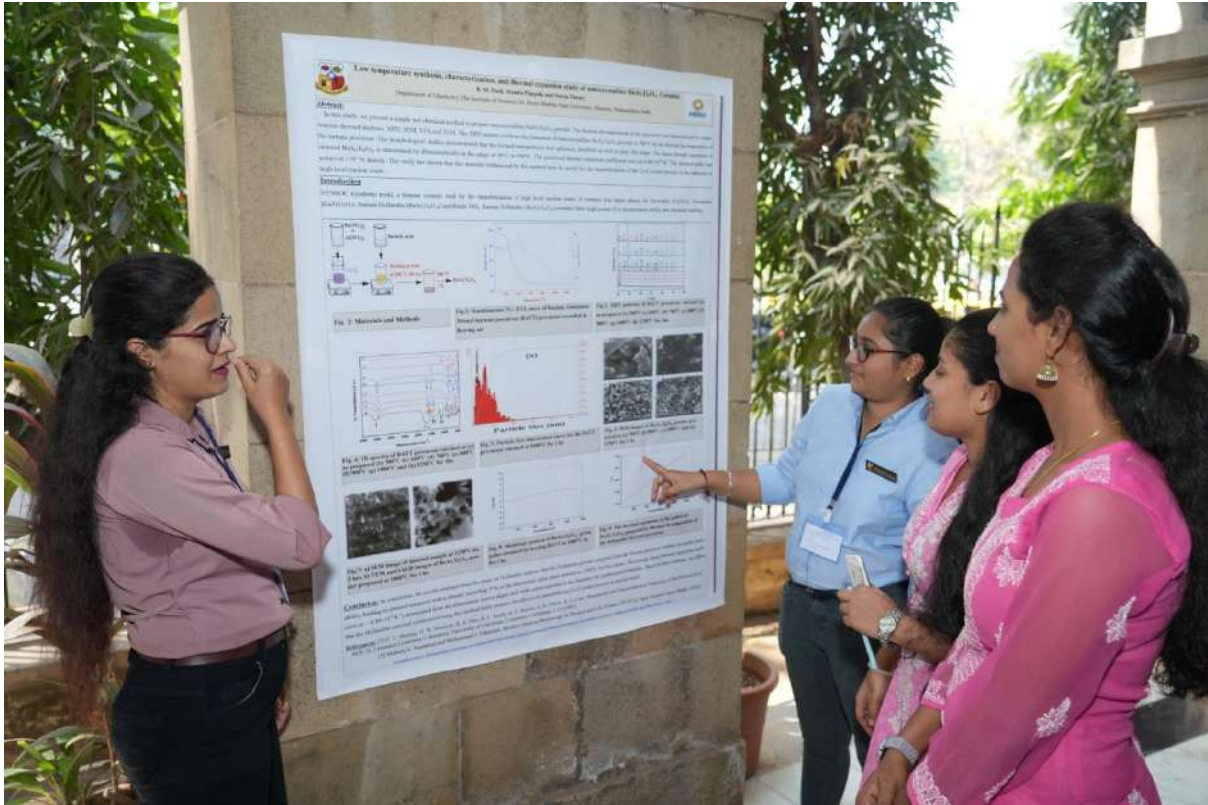
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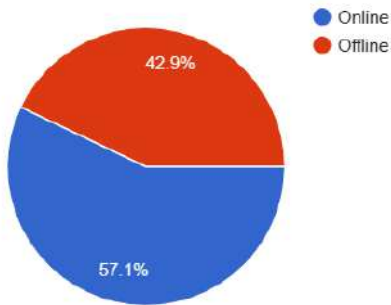




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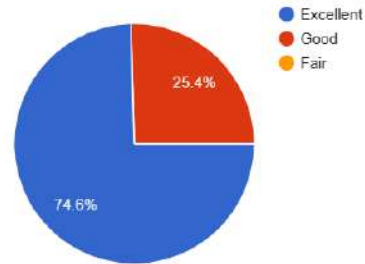
Your mode of attending the conference

177 responses



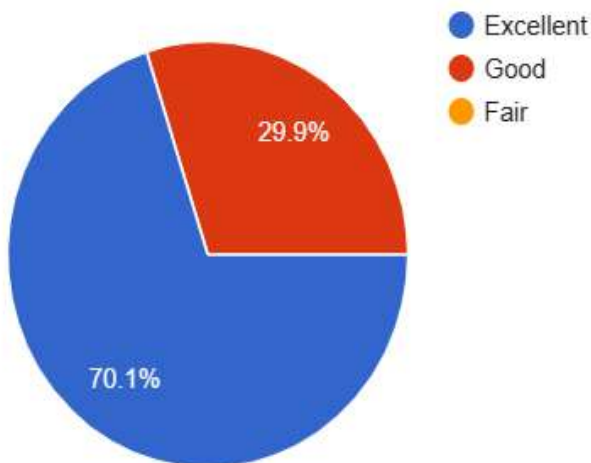
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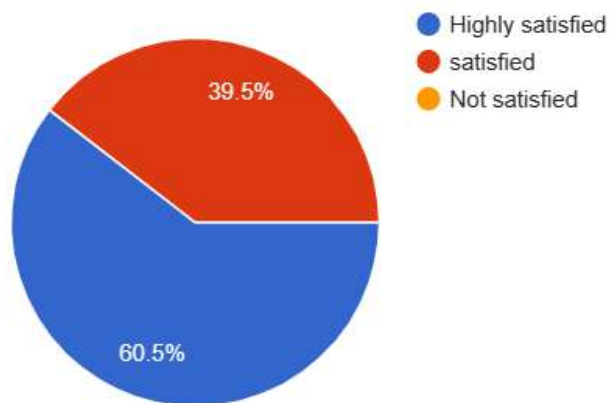
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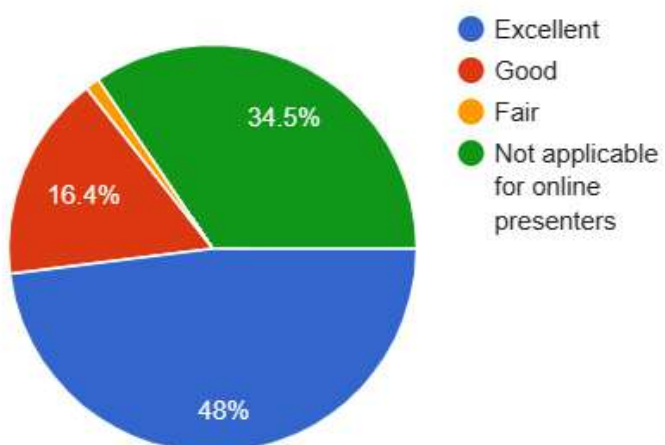
How satisfied are you with the overall organization of the conference?

177 responses



How would you rate the facilities (venue, kit, food, etc.) provided during the conference?

177 responses



Conference Brochure

Activities during conference

- Plenary Talk
- Key note Speaker
- Paper Presentation (Virtual & Offline)
- Poster Presentation (Virtual & Offline)

Focus Areas

- ◊ Science (All branches)
- ◊ Engineering & Technology
- ◊ Data Science and artificial intelligence
- ◊ Computer Science and Technology

Call for Abstract

The International Conference invites submissions of abstracts aligned with the prescribed themes from diverse stakeholders, including academicians, research scholars, students, and industrialists. Abstracts, constrained to a maximum of 250 words, should be dispatched via email to icfei2024@iscm.ac.in before the stipulated deadline of February 5, 2024. Following abstract acceptance, authors will be extended invitations to present their scientific contributions in the form of papers or posters, with the approved abstracts earmarked for publication in the "International Journal of Scientific Research in Science and Technology (IJSRST), Nanofabrication, Biomaterials and Polymers Horizon."

Recognizing potential impediments, we acknowledge the potential unavailability of certain presenters at the conference venue due to financial or other constraints. For those desiring publication in our conference proceedings but unable to attend physically, the option to register as a "virtual presenter" has been instituted. A virtual presentation system, facilitated through Google Meet, has been implemented to afford authors of accepted papers commensurate publication opportunities. Virtual presenters are expected to furnish presentations in various multimedia formats (e.g., PowerPoint with video and/or audio, mp4), which will be disseminated via the conference's YouTube channel, thereby providing accessibility to all participants during and post the conference.

The publication of both abstracts and full papers in the conference proceedings is assured. Subsequent to the conference, virtual presenters will receive an author certificate, proceedings book, and conference materials. Encouragement is extended for the submission of abstracts for virtual presentations, with due consideration given to the stringent review process that will be applied to all submissions.

Conference Overview

In celebration of National Science Day, Dr. Homi Bhabha State University (HBSU), Mumbai, is hosting the "Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024" on February 28th and 29th, 2024. This initiative, organized by HBSU, aims to cultivate a scientific mindset and inspire youth to pursue careers in science, aligning with the conference theme, "Science for a Sustainable Future".

National Science Day, observed on February 28th annually, underscores the significance of science in our daily lives. It emphasizes the pivotal role scientists play in enhancing our understanding of Earth and fostering the creation of more sustainable societies. The conference theme, "Science for a Sustainable Future," serves as a platform to unite researchers, focusing on advancements that contribute to sustainability.

"Science for a Sustainable Future" endeavors to keep students abreast of scientific progress, nurturing a commitment to sustainability.

About Dr. Homi Bhabha State University (HBSU), Mumbai, Maharashtra, India

Dr. Homi Bhabha State University, located in Mumbai, Maharashtra, India, was established by the Government of Maharashtra as a Cluster University, with the Institute of Science, Mumbai, serving as the Lead Institute. Founded in 1920, the Institute of Science has a rich history of post-graduate studies and research, boasting alumni such as Dr. Homi Bhabha, Wrangler, V. V. Narlikar and many more.

Objectives

The primary objective of the conference is to encourage students to engage in scientific research activities with a focus on improving the quality of life for the common man. This goal is pursued through an interdisciplinary approach, aligning with the overarching theme of "Science for a Sustainable Future."

Participants

Participants in the conference will include various stakeholders such as students, researchers, educators, representatives from the private and public sectors, industry professionals, teachers, professors, and scientists. This diverse assembly aims to facilitate fruitful discussions and collaborations for the advancement of scientific knowledge and sustainable practices.

Registration Fee

	Fees
Delegate from Industry	Rs. 500/-
Delegate from Academic & Research Institute	Rs. 300/-
Students & Virtual Presenter	Rs. 200/-
Registration for foreign students/faculties	\$ 20/-
Accompanying person	Rs. 100/-

Bank Account details for payment of registration fee

- Name of account holder: Director, The Institute of Science, Mumbai
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- IFSC Code: HDFC0000060

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Important Last Dates

Submission of Abstract February 10, 2024
 Notification of Acceptance February 13, 2024
 Submission of Full Paper February 20, 2024
 Submission of Registration Fee February 20, 2024

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"Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024"

[ICFEI@2024]

28th & 29th Feb, 2024

(National Science Day Celebration)

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Celebrating

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**[ICFEI@2024]
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Dr.Homi Bhabha State University

The Institute of Science, Mumbai

Government of Maharashtra, Re- Accredited 'A' Grade By NAAC
15- Madame Cama Road, Fort, Mumbai- 400 032

HBSU

“Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024”
[ICFEI@2024]
In collaboration with IQAC

CERTIFICATE OF PARTICIPATION

This is to certify that
Archita R Mehta
from
The Parul university; Applied science, Vadodara- 391760
has participated in Oral (online) presentation entitled
Isolation and screening of cellulolytic bacteria from soil And evaluation of production and Optimization of cellulase
in the “Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024” [ICFEI@2024] organized by The Institute of Science, Dr.Homi Bhabha State University, Mumbai on 28th & 29th February 2024.


Prof. Anamika V. Kadam
 Convener


Dr. Rajesh W. Raut
 Convener


Prof. S. B. Kulkarni
 Director
 The Institute of Science





REPORT

One day hands on training workshop on “Characterization of Nanomaterials and illustration of Their Innovative Applications”. Date: 27th January 2024.

S.N.	Activity	Particulars
1	Theme	Characterization of Nanomaterials and illustration of Their Innovative Applications
2	Date	27 th Jan. 2024 (one day)
3	Fees/registration charges	Free of cost
4	Venue	Dept. of Physics, The Institute of Science, MUMBAI.
5	Target group	Second and third year B.Sc. Physics students
6	Number of students registered	84
7	Number of beneficiaries	80
8	Topics covered	XRD (X – Ray Diffraction), SEM (Scanning Electron Microscopy), UV Visible Spectroscopy, FTIR(Fourier transform infrared spectroscopy), Electrochemical Water Splitting, Super Capacitor, Electrochromism, Solar Cell
9	Issue of certificates	Certificates were issued to all beneficiaries
10	Convener and Resource person	Prof. A. V. Kadam, The Institute of Science, MUMBAI,
11	Chairpersons	1. Prof. S.B. Kulkarni, I/C Director, Institute of Science, MUMBAI. 2. Prof. Rajaneesh Kamat (VC, Dr. Homi Bhabha State University, Fort, Mumbai)
12	Trainers	1. Suchitra Nirudas Sapakal 2. Aisha Khan 3. Amar Jadhav 4. Sharad Jadhav 5. Puja Deshmukh 6. Pratik Sutar 7. Gopika Rajan 8. Nikhat Shikh 9. Vrushali Jadhav 10. Afreen Mirza 11. Rukhasar Momin 12. Priya Gaikwad 13. Vijay Kule 14. Rohit Patil 15. Kaushal Gavankar 16. Omar Shaikh

One day hands on training workshop on “Characterization of Nanomaterials and illustration of Their Innovative Applications” was organized on 27th January 2024 by Department of Physics, The Institute of Science, Mumbai. The aim of this workshop was to give hands-on training of nano material characterizations (SEM, FTIR, XRD and UV-vis spectroscopy) and its applications (Water splitting. Super capacitor, solar cell and electrochromism) to the under graduate (S.Y. and T.Y. B.Sc. Physics) students of all over Maharashtra.

The workshop was inaugurated by the auspicious hands of chairpersons, Prof. Rajaneesh Kamat (VC, Dr. Homi Bhabha State University, Fort, Mumbai) and Prof. S.B. Kulkarni. Prof. Rajaneesh Kamat in his inaugural speech explained the importance of nanomaterials in today’s technological world. Prof. Kulkarni, in his speech explained the importance of characterization techniques for the accurate analysis of nanomaterials. Prof. R. B. Kale stated the importance of such kind of workshops for the students to encourage them towards research. Prof. Anamika Kadam was the anchor for the inaugural function also she gave the vote of thanks.

After inauguration, the hands on training was started. The students were divide into 6 groups and each group visited to the all characterization as well as application labs one by one. The XRD lab was handled by Ms. Gopika Rajan, Mr. Vijay Kule. The UV-vis spectroscopy explained by Ms. Aisha Khan and Ms. Vrushali Jadhav. The SEM instrument was handled by Mr. Amar Jadhav and Ms. Nikhat Shikh. The FTIR was explained n=by Ms. Aisha Khan and Mr. Rohit Patil. Further, in the application session, Supercapacitor was explained by Ms. Priya Gaikawad, Mr. Pratik Sutar and Mr. Omar Shaikh. The water splitting and electrochromism experiments were demonstrated by Ms. Suchitra Nirudas Sapakal, Ms Puja Deshmukh and Mr. Kaushal Gavankar, The solar cell experiment was shown by Ms. Afreen Mirza nad Ms Rukhasar Momin

At the end of workshop, feedback link was provided to the participants and respaces were recorded. Further, some of the participants gave their valuable feedbacks and certificate s were distributed to all the participants .

Announcement



Dr. Homi Bhabha State University

The Institute of Science

Madam Cama Road 15, Churchgate, Mumbai 400032 (centre with Potential for Excellence & NAAC reaccredited 'A' Grade)

DEPARTMENT OF PHYSICS

Under DST-SERB Scientific Social Responsibility
In Association with IQAC centre & School Connect Committee
Organizing

Certificate Oriented Workshop for Graduate Students On

Characterization of Nanomaterials and illustration of Their Innovative Applications

Day and Date: Saturday, 27th January 2024, From 10.00 a.m. to 5.00 p.m.

PATRONS

- ❖ Prof. Rajanish Kamat (Hon'ble Vice Chancellor of HBSU)
- ❖ Prof. S.B. Kulkarni (Director)
- ❖ Prof. Rohidas B. Kale (HOD of Physics)
- ❖ Prof. Anamika V. Kadam (Convenor)

Inaugural talk by

Prof. Rajanish Kamat (Hon'ble Vice chancellor of HBSU)

Explore

Characterisation Techniques

- > XRD (X - Ray Diffraction)
- > SEM (Scanning Electron Microscopy)
- > UV Visible Spectroscopy
- > FTIR (Fourier transform infrared spectroscopy)

Applications Of Nanomaterials

- > Electrochemical Water Splitting
- > Super Capacitor
- > Electrochromism
- > Solar Cell

Free
Registration

Registration link: <https://forms.gle/D7wrN2x5gCUuq2P17>

Join WhatsApp group:

<https://chat.whatsapp.com/JxVcTUPVRP1EbpP03x8qq8>

Help Desk: 9629262507, 9324469131

Registration will be closed on 24 January 2024

Eligibility: SYBSC AND TYBSC (PHYSICS)
Students from all the Colleges are Welcome

Kindly Note: Limited seats are available; selection will be based on first come first serve basis. So, hurry up!

Open your mind to the field of nanoscience Applications

Glimpses of Workshop



INAUGURAL FUNCTION



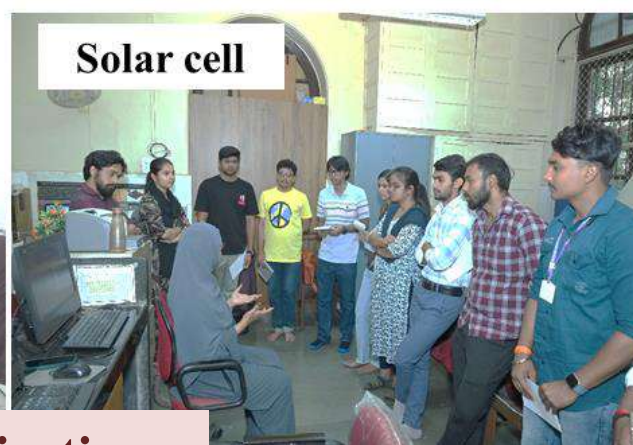
Registration Desk



Hands on Training



Characterisations



Applications



Felicitation ceremony



Certificate
distribution



Timetable and groups

One-day Certificate Oriented Workshop for Graduate Students on
Characterization of Nanomaterials and illustration of Their Innovative Applications

Schedule

Day: Saturday, Date: 27th January 2024

Time	Program
10:00 am -10:25 am	Registration and distribution of kit
10.30 am to 11.15 am	Inauguration ceremony Talk by Prof. Rajarish Kamat (Hon'ble Voice chancellor of HBSU)
11.15 am to 11.30 am	Tea Break
11.30 am to 12.00 pm	Instrument-1
12.00 pm to 12.30 pm	Instrument-2
12.30 pm to 01.00 pm	Instrument-3
01.00 pm to 2.00 pm	Lunch Break
2.00 pm to 2.30 pm	Instrument-4
2.30 pm to 3.00 pm	Instrument-5
3.00 pm to 3.30 pm	Instrument-6
3.30 pm to 3.45 pm	Tea Break
3.45 pm to 4.15 pm	Felicitation ceremony (Feedback and certificate distribution)

Group wise time table

Instrument Time	XRD+UV	SEM	FTIR	Water+ Electrochromic	Super capacitor	Solar Cell
11.30 am to 12.00 pm	G-1	G-2	G-3	G-4	G-5	G-6
12.00 pm to 12.30 pm	G-6	G-1	G-2	G-3	G-4	G-5
12.30 pm to 01.00 pm	G-5	G-6	G-1	G-2	G-3	G-4
LUNCH BREAK (1.00 pm - 2.00 pm)						
2.00 pm to 2.30 pm	G-4	G-5	G-6	G-1	G-2	G-3
2.30 pm to 3.00 pm	G-3	G-4	G-5	G-6	G-1	G-2
3.00 pm to 3.30 pm	G-2	G-3	G-4	G-5	G-6	G-1

Batches

G1	1-14
G2	15-28
G3	29-42
G4	43-56
G5	57-69
G6	70-83

Detail of Batches

G1 Batch	
1	Aakash Gokwad
2	Aashish Dipak Meshrikte
3	Aditya Pradip Bhanekar
4	Aditi Hanuman Tandale
5	Aditi Prasad Sakhare
6	Aditya Jagendra Solanki
7	Amalkrishna Devikaran Chaturvedi
8	Anand Tiwari
9	Aniket Abhishek Tiwari
10	Ansh Arun Shinde

11	Anurag R. Yadav
12	Arya Hanuman Pisal
13	Atharva Sandeep Raut
14	Ayush Gbadigsonkar

G2 Batch

15	Azhar Husain Raem
16	Baintry Kaur Chugh
17	Borade Nitin Dnyanandev
18	Chandrika Naikar
19	Churi Atharva Lalit
20	Dange Sanket Shridhar
21	Devraj datu mane
22	Divya roop Singh rajpurohit
23	Esha Harisharan Jha
24	Gauri Ajit Rame
25	Jalvi chaitany vivek
26	Kewat Deepak Bindirvan
27	Kumbhar Aditya Ajay
28	Magar Samiksha Sunil Leela

G3 Batch

29	Mami Rajurkar
30	Maulik Sameer Dixit
31	Medage Soham Mahadev
32	Michelle Dcosta
33	Mishra Abhishek Manoj
34	Mukesh Ramesh Jaiswar
35	Naeemur Rehman Shaikh
36	Nalage Vishakha Satish
37	Niraj Ramesh Viknis
38	Omkar Mahendra Kamble
39	Prathamesh Narayan Rumade
40	Pratik Umesh Desale
41	Priyanka Ashok Patil
42	Priyanshu Arunaj Singh

G4 Batch

43	Omkar Sangar
44	Reeta chausbey chandrabbhan
45	Ritika Surendra Yadav
46	Sachin Sumil Jaiswar
47	Sachinkumar Jayprakash
48	Sahil Abhiram Rout
49	Sahil Santosh Pawade
50	Samarth patil
51	Sanskriti Anur Khare

52	Satvik santosh kamble
53	Sayali Santosh Chalse
54	Sayyad Nahida Anjum
55	Shaikh Humayrah Ibrahim
56	Shaikh muskan salim

G5 Batch

57	Shinde Rutuja Ramesh
58	Shravani Anil Jadhav
59	Shreya Narendra Gharat
60	Shreyash Rajesh Meher
61	Shubham Masurkar
62	Shweta Suresh Kumar Naikar
63	SOHAM SANJAY TANDEL
64	Soom Girish Kumar Singh
65	Srushti Tuskar kothawale
66	Suryash Kailas Bhatkar
67	Suryesh Devendra Sakhare
68	Swapanrani Swarup Jena
69	Swayam Santosh Tirlokhar

G6 Batch

70	syed mohd kashif
71	Tithsee Parab
72	TIWARI PALAK PRAVESH
73	Vaibhav patidar
74	Varun Vinayak Phatak
75	Vedant Shiram Mahadik
76	Vikas Umesh Gaud
77	Vinayak Mohan Bhamushali
78	Yadav Aman Lalji
79	Yadav Priyanka Virendra
80	Yadav Sachin munnilal
81	Yadav somesh shivshankar
82	Yash Mahesh Shinde
83	Nalawade Megha Hanumanant

Attendance

Kshitiya Pravin Chavan

Kshitiya

G1 Batch		Sign
1	Aakash Gaikwad	Aakash
2	Aashish dipak rajeshirke	Aashish
3	Aditee Pradeep Basutkar	Aditee
4	Aditi Hanumant Tawde	Aditi
5	Aditi Prasad Sakhare	Aditi
6	Aditya Jagendra Solanki	Aditya
7	Amalkrishna Divakaran Chozhiyattil	Amalkrishna
8	Anand Tiwari	Anand
• 9	Aniket Akhilesh Tiwari	Aniket
10	Ansh Arun Shinde	Ansh
11	Anurag R. Yadav	Anurag
• 12	Arya Hanmant Pisal	Arya
• 13	Atharva Sandeep Raut	Atharva
14	Ayush Ghadigoankar	Ayush
G2 Batch		
15	Azhar husain Raeen	Azhar
16	Bainty Kaur Chugh	Bainty
• 17	Borude Nitin Dnyandev	Borude
18	Chandrika Naikar	Chandrika
19	Churi Atharva Lalit	Churi
20	Dange Sanket Shridhar	Sanket
• 21	Devraj dadu mane	Devraj
22	Divya roopsingh rajpurohit	Divya
• 23	Esha Harisharan Jha	Esha
24	Gauri Ajit Rane	Gauri
25	Jalvi chinmay vivek	Jalvi
26	Kewat Deepak Bindravan	Kewat
• 27	Kumbhar Aditya Ajay	Kumbhar
28	Magar Samiksha Sunil Leela	Magar

	G3 Batch	Sign
29	Mansi Rajurkar	
30	Maulik Sameer Dixit	
31	Medage Sohan Mahadev	
32	Michelle Deosta	
33	Mishra Abhishek Manoj	
34	Mukesh Ramesh Jaiswar	
✓ 35	Naeemur Rehman Shaikh	
36	Nalage Vishakha Satish	
37	Niraj Ramesh Vaknis	
38	Omkar Mahendra Kamble	
39	Prathamesh Narayan Rumade	
40	Pratik Umesh Desale	
41	Priyanka Ashok Patil	
42	Priyanshu Arunjay Singh	
	G4 Batch	
43	Omkar Sangar	
✓ 44	Reeta chaubey chandraban	
45	Ritika Surendra Yadav	
46	Sachin Sunil Jaiswar	
✓ 47	Sachinkumar Jayprakash	
48	Sahil Abhiram Rout	
49	Sahil Santosh Pawade	
50	Samarth patil	
51	Sanskruiti Amar Khare	
52	Satvik santosh kamble	
53	Sayali Santosh Chalse	
54	Sayyad Nahida Anjum	
55	Shaikh Humayrah Ibrahim	
56	Shaikh muskan salim	

29] Mansi Nitin Rajurkar

30] Shubham Masurkar - B.N. Bandodkar College Thane.
Msc II (Madhlekare Sir)
9967620026

31] Preet Kumar - IFS- 9958779474

Satsang Rajendra chaurasiya		Satsang
G5 Batch		Sign
57	Shinde Rutuja Ramesh	Rutuja
58	Shravani Anil Jadhav	Shravani
59	Shreya Narendra Gharat	Shreya
60	Shreyash Rajesh Meher	Meher
61	Shubham Masurkar	Shubham
62	Shweta Suresh Kumar Naikar	Shweta
63	SOHAM SANJAY TANDEL	
64	Sonam Girish Kumar Singh	Sonam
65	Srushti Tushar kothawale	Srushti
66	Suyash Kailas Bhatkar	Suyash
67	Suyesha Devendra Sakhare	Suyesha
68	Swapnarani Swarup Jena	Swapnarani
69	Swayam Santosh Tirlotkar	Swayam
G6 Batch		
70	syed mohd kashif	Kashif
71	Tithee Parab	Tithee
72	TIWARI PALAK PRAVESH	Palak
73	Vaibhav patidar	Present
74	Varun Vinayak Phatak	Varun
75	Vedant Shriram Mahadik	Mahadik
76	Vikas Umesh Gaud	Vikas
77	Vinayak Mohan Bhanushali	Vinayak
78	Yadav Aman Lalji	Yadav Aman
79	Yadav Priyanka Virendra	Priyanka
80	Yadav Sachin munnital	Sachin
81	Yadav somesh shivshankar	Somesh
82	Yash Mahesh Shinde	Yash
83	Nalawade Megha Hanumant	Megha

Feedback

Feedback Form for One-Day Cer

Questions Responses Settings

Responses cannot be edited

Feedback Form for Certificate-Oriented One day hands-on training Workshop on Nanomaterials Characterization and Innovative Applications

Date: 27/01/2024
Time: 10:00 AM to 5:00 PM

* Indicates required question

Name of Participant *

Divya Bhatia Bhatia

Gender *

Male
 Female

Name of College/Institute/University *

Yashwantrao Chavan Institute of Science Solapur

Mobile Number *

9023441207

How would you rate the relevance and depth of the workshop content? *

Excellent
 Good
 Average
 Fair

How would you rate the effectiveness of the instructor(s) in delivering the content? *

Excellent
 Good
 Average
 Fair

How satisfied are you with the overall organization of the workshop? *

Very Satisfied
 Satisfied
 Neutral

Feedback Form for One-Day Cer

Questions Responses Settings

Responses cannot be edited

Feedback Form for Certificate-Oriented One day hands-on training Workshop on Nanomaterials Characterization and Innovative Applications

Date: 27/01/2024
Time: 10:00 AM to 5:00 PM

* Indicates required question

Name of Participant *

Divya Bhatia Bhatia

Gender *

Male
 Female

Name of College/Institute/University *

D C Dhapard College of Arts, Science and Commerce

Mobile Number *

9023441207

How would you rate the relevance and depth of the workshop content? *

Excellent
 Good
 Average
 Fair

How would you rate the effectiveness of the instructor(s) in delivering the content? *

Excellent
 Good
 Average
 Fair

How satisfied are you with the overall organization of the workshop? *

Very Satisfied
 Satisfied
 Neutral

How would you rate the hands-on/practical sessions? *

Excellent
 Good
 Average

Feedback Form for One-Day Cer ☆

Questions Responses Settings

Responses cannot be edited

Feedback Form for Certificate-Oriented One day hands-on training Workshop on Nanomaterials Characterization and Innovative Applications

Date: 27/01/2024
Time: 10:00 AM to 5:00 PM

* Indicates required question

Name of Participant *
Anurag R. Yadav

Gender *
 Male
 Female

Name of College/Institute/University *
Bannaram Rusa Autonomous College

Mobile Number *
7715980715

How would you rate the relevance and depth of the workshop content? *

Excellent
 Good
 Average
 Fair

How would you rate the effectiveness of the instructor(s) in delivering the content? *

Excellent
 Good
 Average
 Fair

How satisfied are you with the overall organization of the workshop? *

Very Satisfied
 Satisfied
 Neutral

How would you rate the hands-on/practical sessions? *

Excellent
 Good
 Average

Feedback Form for One-Day Cer ☆

Questions Responses Settings

2 of 63

Responses cannot be edited

Feedback Form for Certificate-Oriented One day hands-on training Workshop on Nanomaterials Characterization and Innovative Applications

Date: 27/01/2024
Time: 10:00 AM to 5:00 PM

* Indicates required question

Name of Participant *
Mithu Athishak Menig

Gender *
 Male
 Female

Name of College/Institute/University *
SSR college of Arts, Commerce and Science

Mobile Number *
9974711521

How would you rate the relevance and depth of the workshop content? *

Excellent
 Good
 Average
 Fair

How would you rate the effectiveness of the instructor(s) in delivering the content? *

Excellent
 Good
 Average
 Fair

How satisfied are you with the overall organization of the workshop? *

Very Satisfied
 Satisfied
 Neutral

Questions Responses **63** Settings

Summary Question Individual

Name of Participant
63 responses

Mishra Abhishek Manoj
Shinde Rutuja Ramesh
Sachin Kumar
Reeta Chaubey chandrabhan
Suyesha Devendra Sakhare
Naeemur Rehman Shaikh
Medage Sohan Mahadev

Gender
63 responses

Gender	Percentage
Male	60.3%
Female	39.7%

Name of College/Institute/University
63 responses

Wilson College
Yashwantrao chavan institute of science satara
Ramnarain Ruia Autonomous College
Patkar varde college
Patkar Varde College
IOS
SSR college of Arts, Commerce and Science

Mobile Number
63 responses

07507770474
9974711521
9503441207
8652710745
8850037929
8999774151

Feedback Form for One-Day Cer ☆

Questions Responses **63** Settings

8692061863

How would you rate the relevance and depth of the workshop content?
63 responses

Rating	Percentage
Excellent	77.8%
Good	22.2%
Average	0%
Fair	0%

How would you rate the effectiveness of the instructor(s) in delivering the content?
63 responses

Rating	Percentage
Excellent	74.6%
Good	25.4%
Average	0%
Fair	0%

How satisfied are you with the overall organization of the workshop?
63 responses

Rating	Percentage
Very Satisfied	71.4%
Satisfied	28.6%
Neutral	0%

How would you rate the hands-on/practical sessions
63 responses

Rating	Percentage
Excellent	65.9%
Good	30.2%
Average	2.9%
Fair	1.0%

How would you rate the facilities (venue, food, equipment, etc.) provided for the workshop?
63 responses

Rating	Percentage
Excellent	72%
Good	28%
Average	0%
Fair	0%

Please provide any specific suggestions or comments on how we can improve future



*A joint Webinar Organised by The Institute of Science, Mumbai,
and Dr. Homi Bhabha State University*

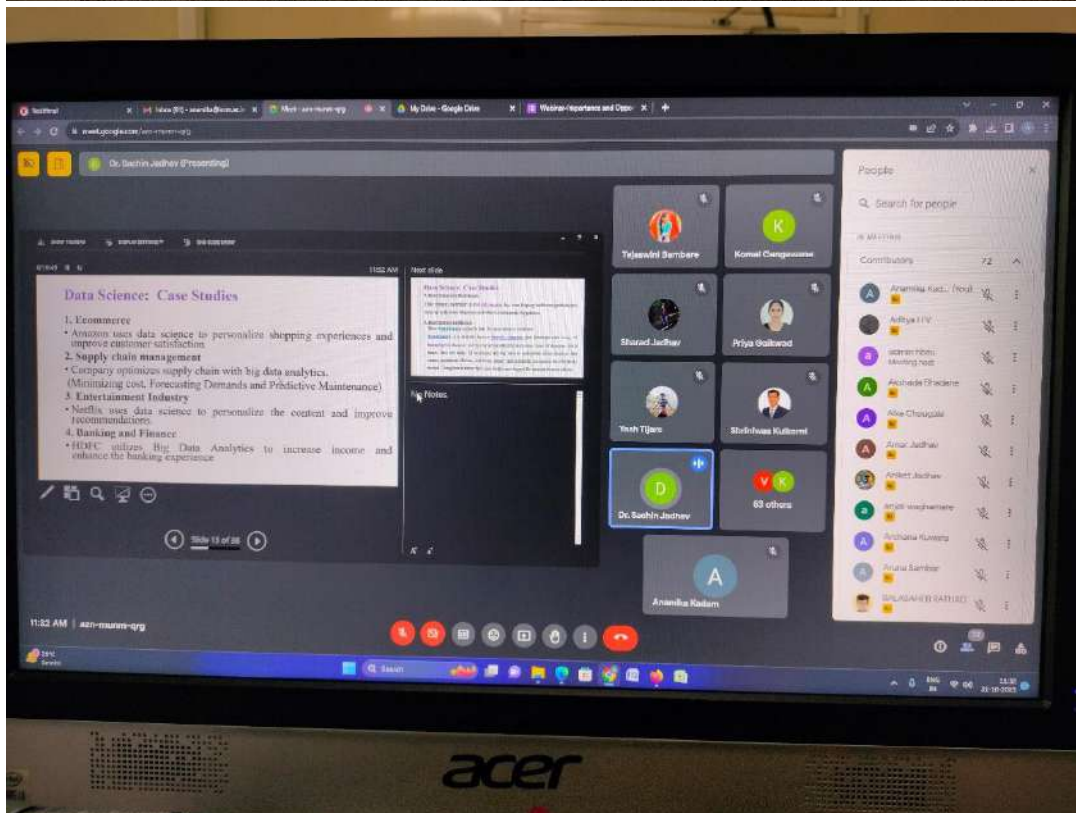
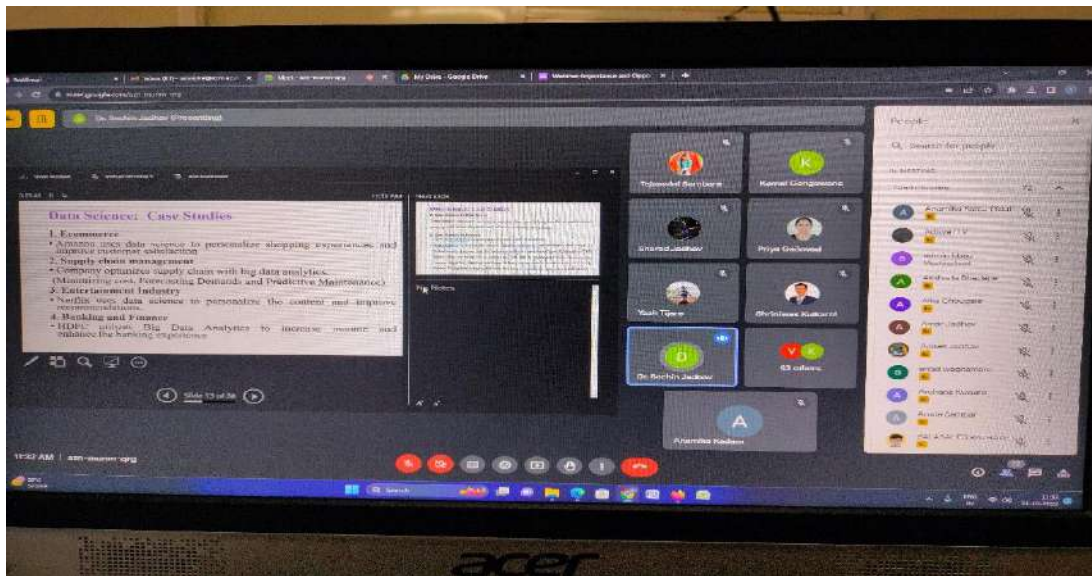
Importance and Opportunity of ‘Data Science’ In the Field of Research and Industry

Dr. Sachin Jadhav
Associate Professor
School of Computer and Systems Sciences (SC&SS)
Jawaharlal Nehru University (JNU), New Delhi

30th October 2023



Presentation and Demonstration session	Details of Content (Objectives)
<p>Content focus</p> <ol style="list-style-type: none"> 1. Data, Big Data, and Challenges: Importance of Data Science 2. Data Science: <ul style="list-style-type: none"> • Introduction • Why Data Science • What is Data Science • Real Life Examples 3. Data Science Case Studies: <ul style="list-style-type: none"> • DS in Banking and Finance • DS in E-Commerce • DS in Health Care • DS in Biotech 4. Skillsets required for Data Scientists 5. Programming Languages for Data Science: Why Python for Data Science 6. Trends in Programming tools used in DS: Trends across the globe 7. Data Perspective of DS 8. Powerful Python Libraries for DS 9. Data Visualization using Python Matplotlib. 10. Opportunity in Data Science. 11. Role and Responsibilities as a Data Scientist 	<ul style="list-style-type: none"> • To Understand the basic concepts and importance of Data Science (DS). • To know the Real-life examples of Data Science (DS). • To Study the different Case Studies of DS. • To Understand programming languages used for DS. • To know the Trends in programming tools used in DS • To know the Roles and Responsibilities of a Data Scientist. • To Demonstrate Graphical Data-Visualization of the plots using Python Matplotlib.
<p>Demonstration of Data Visualization Examples using Python Matplotlib</p>	<p>Demonstrated various Data Visualization Examples using Python Matplotlib:</p> <ol style="list-style-type: none"> 1. Plotting Line Using Two Points 2. Plotting Curve Using Multiple Points 3. Plotting Scatter Plot Using Multiple Points <p>Google Collab: Jupiter Notebook used for programming and Demonstration of graphical visualization of the plots.</p>



35th RSM-2024
INDIAN CHEMICAL SOCIETY (MUMBAI BRANCH)
In associated with
THE INSTITUTE OF SCIENCE
DR.HOMI BHABHA STATE UNIVERSITY, MUMBAI
February 23 & 24, 2024
(Friday & Saturday)

S.N.	Acti vity	Particulars
1	Theme	Research Scholar Meet
2	Dates	February 23 & 24, 2024
3	Fees/registration charges	1000Rs (One thousand rupees only)
4	Venue	Dept. of Chemistry (Room 36) , The Institute of Science, MUMBAI.
5	Target group	Research Students (Ph.D. Students, MSc. Research project students)
6	Number of students registered	68 Oral Presentation: 33 Poster Presentation : 33
7	Number of beneficiaries	123
8	Topics covered	Various Research Themes by Students
9	Issue of certificates	E-certificates were issued to all beneficiaries
10	Chairperson	Prof. Dr. Yuvraj Malghe
11	Convenor	Prof. Dr .R.M.Patil
12	Organizing secretary	Prof. Dr.Ratnmala Sonawane
13	Dignitaries on Dias for Inaugural and Valedictory Function of RSM 2024	1.Dr. V. Sudarsan President, Indian Chemical Society, Mumbai- Branch 2.Dr. R. Acharya Secretary, Indian Chemical Society, Mumbai Branch 3. Prof S. B. Kulkarni, Director, I. Sc. Mumbai 4. Prof. Rajanish Kamat Hon. VC, HBSU University, Mumbai 5. Prof. Ravindra Kulkarni Hon. Vice Chancellor, University of Mumbai, Mumbai 6.Mr. Yogen Parikh Environmental Consultant 7.Prof. A. D. Sawant Chief Trustee, Institute of Science Golden Jubilee Trust fund and Former V. C., University of Rajasthan 8. Prof. Y. S. Malghe, HOD Dept of Chemistry, I. Sc. Mumbai

The 35th Research Scholar Meet (RSM-2024), organized by the Indian Chemical Society's Mumbai Branch in association with The Institute of Science, Dr. Homi Bhabha State University Mumbai, took place on the 23rd and 24th of February. The primary theme of this esteemed gathering was to facilitate interaction among research scholar students, providing them with a platform to present their work through oral presentations or poster presentations. This event served as a crucial opportunity for budding researchers to showcase their findings, exchange ideas, and foster collaborative efforts within the scientific community. By encouraging scholarly discourse and knowledge sharing, the RSM-2024 aimed to not only enhance the visibility of ongoing research but also to inspire further exploration and innovation in the field of chemistry.

With a focus on fostering research endeavors, the agenda of the 35th RSM-2024 was set to stimulate intellectual dialogue and academic growth among participating scholars. Through engaging presentations and discussions, attendees were able to delve into the latest advancements, methodologies, and challenges within the realm of chemical research. By nurturing an environment conducive to scholarly exchange and networking, this event aimed to catalyze interdisciplinary collaborations and propel scientific inquiry forward. Ultimately, the RSM-2024 underscored the importance of continuous learning and collaboration in driving meaningful progress in the field of chemistry, thereby laying the groundwork for future breakthroughs and advancements in scientific knowledge.



**Dr. Homi Bhabha State University, Mumbai
The Institute of Science,
Department of Chemistry**

In association with

Indian Chemical Society, Mumbai Branch

Cordially invite you for inaugural function of

**35TH RESEARCH SCHOLARS' MEET
RSM-2024**

Sponsored by

**DAE – BRNS
Government of India
&**

Golden Jubilee Trust Fund, The Institute of Science

Friday, 23rd February, 2024 Time: 10:00 am

Venue

**Room No. 36, The Institute of Science,
15, Madame Cama Road, Mumbai**

Distinguished Guests

Prof. Rajanish Kamat

Hon'ble Vice-Chancellor, Dr. Homi Bhabha State University, Mumbai

Yogen Parikh

Environmental Consultant

Dr. V. Sudarsan

President, Indian Chemical Society, Mumbai Branch

Dr. R. Acharya

Secretary, Indian Chemical Society, Mumbai Branch

Prof. R. M. Patil
Convener, RSM

Prof. Y.S. Malghe
HOD, Dept. of Chem.

Prof. S.B. Kulkarni
I/C Director

Activities Held in RSM 2024

Day 1: Friday, 23rd February, 2024

- 9.00 : Registration and Breakfast
- INAUGURATION OF RSM-2024**
- 10.00 : National Anthem
- 10.05 : Introduction - Dr. Gayatri Barabde – Professor, I. Sc. Mumbai
- 10.05 : Welcome Address – Prof. Y. S. Malghe
HOD, Chemistry Department, I. Sc. & Chairperson RSM-2024
- 10.10 : Felicitation of Dignitaries
- 10.15 : Introduction to RSM-2024 - Dr. V. Sudarsan President, Indian Chemical Society, Mumbai Branch
- 10.20 : Secretarial Remarks - Dr. R. Acharya
Secretary, Indian Chemical Society, Mumbai Branch
- 10.25 : Address by Director : Prof S. B. Kulkarni,
Director, I. Sc. Mumbai
- 10.30 : Presidential Address – Prof. Rajanish Kamat
Hon. Vice Chancellor, HBSU University, Mumbai
- 10.40 : Inaugural Address – Mr. Yogen Parikh
Environmental Consultant
- 10.55 : Vote of Thanks – Prof. R. M. Patil , Convenor, RSM-2024
- 11.00 : Tea Break

TECHNICAL SESSION II: ORAL PRESENTATIONS

- 2.00 : Introduction of Session Chairpersons
- 2.05 : OP-8 : Surface Plasmon Driven Semi-Hydrogenation of Acetylene Using Air-Stabilized Ru-Pt Loaded 'Black Gold' Nanoreactors, Gunjan Sharma and Vivek Polshettiwar*
- 2.20 : OP-9 : Exchanging Interlayer Anions In NiFe-LDHS Nanosphere Enables Superior Battery-Type Storage For High-Rate Aqueous Hybrid Supercapacitors, Harishchandra A. Nishad and Pravin Walke*
- 2.35 : OP-10: Microwave Assisted Synthesis of Acylhydrazonoxime Ligands and Study of Their Copper and Zinc Metal Complexes, Jotiram Krishna Chavan and R. M. Patil*
- 2.50 : OP-11: Determination of Paraben, Phthalates & TCC from Sanitary napkins by HPLC, Mamata Madhusudan Tendulkar and Sushama Ambadekar*
- 3.05 : OP-12: Exploring the potential of novel radiolabeled porphyrin conjugates for imaging and therapy of cancers, Naveen Kumar and Tapas Das*
- 3:20 : OP-13: Synthesis of Transition Metal Phosphides For Environmental and Energy Applications, Omkar V. Vani and Anil M. Palve*
- 3.35 : OP-14: Connecting the Dots: Navigating Challenges and Solutions in Bridging the Industry-Academia Gap for Emerging Green Hydrogen Production Technologies, Oshnik Maurya and Archana S. Kalekar*
- 3.50 : Tea Break

TECHNICAL SESSION I: ORAL PRESENTATIONS

- 11.10 : Introduction of Session Chairpersons
- 11.15 : OP-1: Rapid Estimation of Escitalopram Impurities in multiple brands using comprehensive stability indicating RP-HPLC method, Anand Tiwari and Sushama Ambadekar*
- 11.30 : OP-2: Inhibiting the activity of malarial drug target Plasmeprin V by quinolines in aqueous medium, Anita Prajapati and Sinjan Choudhary*
- 11.45 : OP-3: Controlled Synthesis of Photoresponsive Bismuthinite (Bi₂S₃) Nanostructures Mediated Through A New 1d Bismuth-Pyrimidylthiolate Coordination Polymer as Molecular Precursor, Atharva Yeshwant Kulkarni and Rohit Singh Chauhan*
- 12.00 : OP-4: Silica Supported Zinc Oxide Nanoparticles: An Efficient and Reusable Heterogeneous Catalyst for Biginelli Reaction, Bandoba T. Nikam and Yuvraj S. Malghe*
- 12:15 : OP-5: Functional Nanomaterials for Hydrogen Storage using Density Functional Theory, Chaitanya Gend and Ajay Chaudhari*
- 12:30 : OP-6: Microwave-Assisted Synthesis Of Anticancer Benzimidazole Derivatives, Chirag B. Gawali and Vikas M. Bangade*
- 12.45 : OP-7: Electrocatalysis of Oleic Acid Oxygenation by Thermostable CYP175A1 On ITO Electrode, Dineshkumar Yadav and Shivram S. Garje*
- 1.00 : Lunch Break

TECHNICAL SESSION III: POSTER PRESENTATIONS (PP1 TO PP-33)

- 4.00 : Session Chairpersons: Dr. R. Acharya and Prof. Y. S. Malghe to 5.30

Day 2: Saturday, 24th February, 2024

- 9.00 : **Breakfast**
- TECHNICAL SESSION IV: ORAL PRESENTATIONS**
- 10.00 : **Introduction of Session Chairpersons**
- 10.05 : **OP-15:** Multiple Ti-doped nanocages for hydrogen storage: A DFT study, Poonam Sandip Parkar and Ajay Chaudhari*
- 10.20 : **OP-16:** Study Of Variation In Water Parameters And WQI Of Major River In Thane District. Pradnyesh Agre and Gayatri Barabde*
- 10.35 : **OP-17:** Synthesis, Characterization, And Supercapacitor Applications Of Ni-Doped CuMnFeO₄ Nano Ferrite, Pramod Mohan Agale and Paresh S. More*
- 10:50 : **OP-18:** Tuning Catalytic Activity of Palladium in Direct C-H Arylation of Biologically Active Xanthenes using Silver Additive, Pranali Thakur and Mahendra Patil*
- 11:05 : **OP-19:** Development And Validation Of Fast, Simple RP-HPLC Method For Simultaneous Estimation Of Brompheniramine Maleate, Dextromethorphan HBr And Phenylphrine HCl In Pharmaceutical Syrup Dosage Form. Priyanka Pataskar and Gayatri Barabde*
- 11:20 : **OP-20:** The Role Of Colchicine On Actin Polymerization Dynamics: As A Potent Anti-Angiogenic Factor, Rahul Gupta and Avinash Kale*
- 11:35 : **OP-21:** Solar-Powered Bond Activation: Hot Electron Chemistry in Plasmonic Black Gold-Nickel, Rishi Verma and Vivek Polshettiwar*
- 11.50 : **Tea Break**
- TECHNICAL SESSION V: ORAL PRESENTATIONS**
- 12.00 : **Introduction of Session Chairpersons**
- 12.05 : **OP-22:** Synthesis, Characterisation And Application Studies Of Metallic Magnetic Nanoparticles, Sahebrao B Kashid and . Y S Malghe*
- 12.20 : **OP-23:** Indion Resin As A Novel Catalyst For The Organic Reactions, Sampat Baban Yewale and Y.S.Malghe*
- 12.35 : **OP-24:** Synthesis and characterization of photochromic Polymers, Shreyashi Ravindra Khot and Dr. Ravibabu A. Tayade*
- 12.50 : **OP-25:** Synthesis, Characterization and optoelectronic studies of donor-acceptor based heterocyclic compounds for organic electronics, Suraj Suresh Mahadik and Rajesh M. Kamble*
- 1.05 : **Lunch Break**
- TECHNICAL SESSION VI: ORAL PRESENTATIONS**
- 2.05 : **Introduction of Session Chairpersons**
- 2.10 : **OP-26:** Synthesis of nanosized composite oxides and investigation of their gas sensing properties, Swapnali Bhagwan Dhage and Yuvraj S. Malghe*
- 2.25 : **OP-27:** Phytochemical Screening And Standardization Of A Polyherbal Ayurvedic Formulation Having Anti- Diabetic Activity Using Biomarkers, Swarupa A. Salvi and . Chitra Kamath*
- 2.40 : **OP-28:** Pritine and doped B 9 N 9 nanoring for gas sensing: A DFT Study, Unnati Jethawa and Ajay Chaudhari*
- 2.55 : **OP-29:** Zn_{1-x}Co_xMn_{1-x}Fe_xCrO₄ Ferrichromate: An Efficient Material For High Performance Supercapacitor Applications, Vaibhav Mohan Salve and Paresh S More*
- 3.10 : **OP-30:** Synthesis, Characterization and DFT Study of the Stobbe Product, Viniket R. Gawand and R. A. Tayade*
- 3:25 : **OP-31:** Enhancing The Gas Separation And Sorption Efficiency Of Zeolitic Imidazolate Framework-8 Through Pore Architecture Tuning,
- 3.40 : **OP-32:** Physicochemical properties of silk fibroin film from *Antheraea frithi moore* cocoon for potential biomaterial applications, Sanasam Yaiphabi and S. Kunjeshwori Devi,*
- 3.55 : **OP-33:** Design and Synthesis of Exciplex Forming Cohost for a Highly Efficient Red-Phosphorescent Optoelectronic Device, Gokul Ganesana and Atul C. Chaskara*
- 4.10 : **Tea Break**
- VALEDICTORY FUNCTION OF RSM-2024**
- 4.15 : **Introduction - Dr. Gayatri Barabde – Professor, I. Sc. Mumbai**
- 4.20 : **Welcome Address – Prof. R. M. Patil
Convenor, RSM-2024**
- 4.25 : **Felicitation of Dignitaries**
- 4:30 : **Technical Report - Dr. P. A. Hassan
Indian Chemical Society, Mumbai Branch**
- 4.40 : **Feedback of Participants**
- 4:50 : **Presidential Address – Prof. A. D. Sawant
Chief Trustee, Institute of Science Golden Jubilee Trust fund and
Former V. C., University of Rajasthan**
- 5.00 : **Valedictory Address – Prof. Ravindra Kulkarni
Hon. Vice Chancellor, University of Mumbai, Mumbai**
- 5.15 : **Vote of Thanks – Prof. Ratnamala Sonawane , Secretary, RSM-2024**
- 5.20 : **National Anthem**

Attendance in RSM 2024

Total = 68 presenters
65 paid online
3 paid offline

Registration for RSM
23-24 Feb 2024

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8 remaining were the observers

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RSM 2024 REPORT

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Glimpses of RSM 202







