



Dr. Homi Bhabha State University



सत्यमेव जयते

Government of Maharashtra



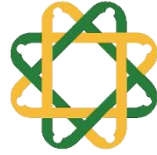
स्वातंत्र्याचा अमृत महोत्सव

# ANNUAL REPORT

## (A.Y. 2023-24)

**DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI**





**HBSU**

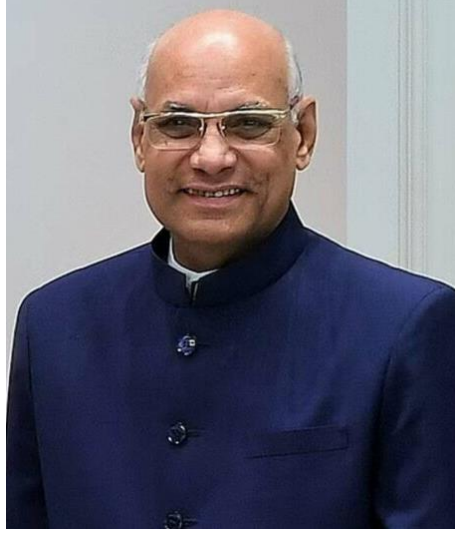
Dr. Homi Bhabha State University

**DR. HOMI BHABHA STATE UNIVERSITY,  
MUMBAI**

**ANNUAL REPORT**

**Academic Year 2023-24**

**Dr. Shyama Prasad Mukherjee Chowk, Mahatma Gandhi Road,  
Mantralaya, Fort, Mumbai, Maharashtra 400032  
India**



**SHRI. RAMESH BAIS**

**Hon'ble Chancellor, Dr. Homi Bhabha State University &  
Hon'ble Governor of Maharashtra State**



**SHRI. CHANDRAKANT (DADA) PATIL**

**Hon'ble Minister of Higher and Technical Education,  
Government of Maharashtra**



**PROF. RAJANISH K. KAMAT**

**Vice-Chancellor**



**PROF. VILAS PADHYE**

**Registrar**



# **DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI**

## **ANNUAL REPORT**

**Academic Year 2023-24**

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## **Vice-Chancellor's Foreword**

It is with great pride and immense satisfaction that I present to you the Annual Report 2023-24 of Dr. Homi Bhabha State University, Mumbai. This document captures the essence of the remarkable progress and achievements of our institution, which stands as a beacon of excellence in higher education.

The story of Dr. Homi Jehangir Bhabha, the visionary after whom our university is named, is one of inspiration and brilliance. A polymath who excelled in engineering, mathematics, and nuclear physics, Dr. Bhabha was also an admirer of poetry and painting. His vision for India's scientific and technological advancement continues to inspire us as we strive to uphold his legacy.

Dr. Homi Bhabha State University, Mumbai, is India's leading cluster university, an innovative and visionary initiative of the Government of Maharashtra. Comprising prestigious constituent colleges such as the Institute of Science, Elphinstone College, Sydenham College of Commerce and Economics, and Government Secondary Training College, our university builds on the rich heritage and academic excellence of these venerable institutions. Notably, Elphinstone College, established in 1823, predates the University of Mumbai and has nurtured luminaries like Bharat Ratna Dr. Babasaheb Ambedkar, Bharat Ratna Dr. Dhondo Keshav Karve, Lokmanya Bal Gangadhar Tilak, and Jamshedji Tata, among many others.

During the academic year 2023-24, our university has made significant strides in fostering multidisciplinary education, industry-aligned courses, and community engagement. From launching cutting-edge programs like Banking and Financial Services Analytics and Bachelor of Sport Management to introducing optional subjects tailored to contemporary industrial demands, we are committed to equipping our students with the skills and knowledge required for the future.

Our emphasis on research has been equally noteworthy, with over 315 research papers published, 5 patents secured, and substantial funding received for innovative projects. Our students and faculty continue to lead impactful research in areas such as environmental sustainability, digital inclusion, and advanced scientific exploration.

The introduction of new courses across our constituent colleges, complemented by extensive faculty training and the holistic implementation of the National Education Policy 2020, stands as a key highlight.. Moreover, our commitment to societal contributions through the National Service Scheme has seen the organization of numerous community-oriented initiatives, from blood donation drives to environmental conservation activities.

As we celebrate these accomplishments, it is important to acknowledge the dedication of our faculty, staff, and students. Together, we are shaping a university that embodies the ideals of knowledge, innovation, and service to society.

As we look to the future, let us continue to honor the legacy of Dr. Homi Bhabha by embracing the transformative power of education and innovation. This Annual Report is not just a reflection of our past achievements but also a promise of our firm commitment to excellence in the years to come.

Prof. (Dr.) Rajanish Kamat  
Vice-Chancellor,  
Dr. Homi Bhabha State University,  
Mumbai

The Committee constituted by the Hon. Vice-Chancellor to finalize the Annual Report:

1. Prof. S. B. Kulkarni - Dean, Faculty of Science & Technology
2. Prof. Shrinivas Dhure - Dean, Faculty of Commerce & Management
3. Prof. Suvidyaa Sarvankar - Dean, Faculty of Interdisciplinary Studies
4. Dr. Saumitra Sawant - Dean, Faculty of Humanities
5. Dr. Vishal Banewar - Director, Innovation, Incubation & Linkages

Annual Report Published by: Prof. Vilas Padhye, Registrar

## *VISION*

To be a premier institution of higher learning, committed to academic excellence, research, innovation, and social transformation, that prepares future leaders for a sustainable and equitable world

## *MISSION*

Our mission is to provide high-quality education, foster critical thinking, communication, collaboration, creativity and encourage innovative research that leads to social transformation.

We aim to empower our students with the necessary skills, knowledge, and values to contribute to the betterment of humankind.

We strive to create an inclusive, diverse and welcoming environment that promotes personal growth, teamwork, ethics and leadership development.

## UNIVERSITY AUTHORITIES & BODIES:

<b>Hon. Chancellor of the University</b>	Shri. Ramesh Bais, Hon'ble Governor of Maharashtra
<b>Vice Chancellor of the University</b>	Prof. (Dr.) Rajanish Kamat
<b>Registrar of the University</b>	Prof. Vilas Padhye (09/08/2023 to till date) Prof. Yuvraj Malghe (10/08/2022 to 08/08/2023)
<b>Director, Board of Examinations &amp; Evaluation</b>	Smt. Vijaya Yeole
<b>Director, Innovation, Incubation &amp; Linkages</b>	Dr. Vishal Banewar
<b>Finance and Accounts Officer</b>	Shri. Madhav Nagargoje (20/03/2024 to till date) Dr. Sushilkumar Choudhari (26/02/2024 to 19/03/2024) Dr. Sanjay Jagtap (21/08/2023 to 25/02/2024) Shri. Pravin Jain (01/02/2023 to 20/08/2023)
<b>Dean, Faculty of Science and Technology</b>	Prof. Shriniwas Kulkarni
<b>Dean, Faculty of Commerce and Management</b>	Prof. Shriniwas Dhure
<b>Dean, Faculty of Humanities</b>	Dr. Saumitra Sawant
<b>Dean, Faculty of Interdisciplinary Studies</b>	Prof. Suvidyaa Sarvankar (22/03/2024 to till date) Shri. Sunil Sonawane (29/09/2022 to 21/03/2024)
<b>Director, Student Development</b>	Shri. Rajendra Mali
<b>Director, Knowledge Resource Centre</b>	Shri. Unmesh Nangre.
<b>Director, Lifelong learning and Extension</b>	Dr. Mahadev Sonawane
<b>Director, Sports and Physical Education</b>	Dr. Anita Malge
<b>Director, National Service Scheme (NSS)</b>	Dr. Parag Masram
<b>Director, Internal Quality Assurance Cell</b>	Dr. Vishal Banewar

## General Council

The General Council, HBSU is constituted under the provision of Para 14(2) of the Dr. Homi Bhabha State University, Mumbai, Government of Maharashtra, Department of Higher and Technical Education Gazette dated February 13, 2019.

Sr. No.	Section	Name	Designation
1.	14(2)(a)	Hon. Shri. Ramesh Bais, Governor of Maharashtra, The Chancellor, HBSU	Chairperson
2.	14(2)(b)	Dr. Rajanish Kamat, Vice-Chancellor, HBSU	Member, To preside GC in absence of the Chancellor.
3.	14(2)(c)	Dr. Anil Kakodkar, Ex-Chairman, Atomic Energy Commission, India, Vice-Chancellor's Nominee	Member
4.	14(2)(c)	Dr. Shriniwas Kulkarni, Dean, Faculty of Science & Technology, Vice-Chancellor's Nominee	Member
5.	14(2)(c)	Dr. Shriniwas Dhure, Dean, Faculty of Commerce & Management, Mumbai, Vice-Chancellor's Nominee	Member
6.	14(2)(d)	Smt. Sangeeta Joshi, Associate Professor, Elphinstone College, Mumbai, Vice-Chancellor's Nominee	Member
7.	14(2)(d)	Dr. Ratan Hazare, Associate Professor, Vice-Chancellor's Nominee	Member
8.	14(2)(e)	Dr. Suvidyaa Sarvankar, Dean, Faculty of Interdisciplinary Studies, Vice-Chancellor's Nominee	Member
9.	14(2)(f)	One representative nominated by the State Government not below the rank of Joint Director	Member
10.	14(2)(g)	Shri. Sanjiv Lathia, Industry representative, Vice-Chancellor's Nominee	Member
11.	14(2)(g)	Dr. Sunit Rane, Principal Scientist/Scientist 'E', Centre for Materials for Electronics Technology, Pune, Vice-Chancellor's Nominee	Member
12.	14(2)(h)	Prof. Vilas Padhye, Registrar, HBSU	Invitee

## Management Council

The Management Council, HBSU is constituted under the provision of Para 17(3) of the Dr. Homi Bhabha State University, Mumbai, Government of Maharashtra, Department of Higher and Technical Education Gazette dated February 13, 2019.

Sr. No.	Section	Name	Designation
1.	17(3)(a)	Dr. Rajanish Kamat, The Hon. Vice-Chancellor	Chairperson
2.	17(3)(b)	Dr. Avinash Dalal, Hon. Chancellor's Nominee	Member
3.	17(3)(c)	Dr. Shriniwas Kulkarni, Dean, Faculty of Science & Technology, Vice-Chancellor's Nominee	Member
4.	17(3)(c)	Dr. Saumitra Sawant, Dean, Faculty of Humanities, Vice-Chancellor's Nominee	Member
5.	17(3)(d)	Dr. Shashank Dalvi, VC, MGM Institute of Health Sciences, Mumbai, Vice-Chancellor's Nominee	Member
6.	17(3)(d)	Dr. Pradip Jabde, Principal, SBES College of Science, Aurangabad, Vice-Chancellor's Nominee	Member
7.	17(3)(d)	Dr. Tukaram Shiware, Ex. Principal, KPB Hinduja College of Commerce, Mumbai, Vice-Chancellor's Nominee	Member
8.	17(3)(e)	Dr. Shriniwas Dhure, Principal, Sydenham College of Commerce & Economics, Mumbai	Member
9.	17(3)(f)	Dr. Sushilkumar Chaudhari, Associate Professor, Institute of Science, Mumbai	Member
10.	17(3)(f)	Shri. Bharat Raut, Assistant Professor, Elphinstone College, Mumbai	Member
11.	17(3)(g)	Shri. Maneck E. Davar, Chairman, SEPC, Mumbai	Member
12.	17(3)(h)	Ms. Chaitra Shriyan, Regular Student, The Institute of Science, Mumbai, Vice-Chancellor's Nominee	Member
13.		Prof. Vilas Padhye, Registrar, Dr. HBSU	Member Secretary

## Academic Council

The Academic Council, HBSU is constituted under the provision of Para 19 of the Dr. Homi Bhabha State University, Mumbai, Government of Maharashtra, Department of Higher and Technical Education Gazette dated February 13, 2019.

Sr. No.	Section	Name	Designation
1.	19 (2)(a)	Dr. Rajanish Kamat, The Hon. Vice-Chancellor	Chairperson
2.	19 (2) (b & c)	Dr. Shrinivas Kulkarni, Director, The Institute of Science, Mumbai and Dean, Faculty of Science & Technology, HBSU, Mumbai	Member
3.	19 (2) (b & c)	Dr. Shrinivas Dhure, Principal, Sydenham College, Mumbai and Dean, Faculty of Commerce & Management, HBSU, Mumbai	Member
4.	19 (2) (b & c)	Dr. Saumitra Sawant, Principal, Elphinstone College, Mumbai and Dean, Faculty of Humanities, HBSU, Mumbai	Member
5.	19 (2) (b & c)	Dr. Suvidyaa Sarvankar, Principal, Secondary Training College, Mumbai and Dean, Faculty of Interdisciplinary Studies, HBSU, Mumbai	Member
6.	19 (2)(d)	Prof. Ajay Chaudhari, Professor, Head of Department (Physics), The Institute of Science, Mumbai	Member
7.	19 (2)(d)	Smt. Deepa Hirani, Head of Department (Microbiology), Elphinstone College, Mumbai	Member
8.	19 (2)(d)	Dr. Rupesh Raut, Head of Department (Zoology), Elphinstone College, Mumbai	Member
9.	19 (2)(e)	Dr. R. M. Patil, Professor, The Institute of Science, Mumbai	Member
10.	19 (2)(e)	Dr. Gayatri Barabde, Professor, The Institute of Science, Mumbai	Member
11.	19 (2)(f)	Shri. Rajendra Mali, Assistant Professor, Sydenham College, Mumbai(OBC)	Member
12.	19 (2)(f)	Dr. Radhika Iyer, Assistant Professor, Elphinstone College, Mumbai (Open)	Member
13.	19 (2)(g)	Shri. Minoo Fali Titina, Special Advisor (Academics), Public State Russian Universities.	Member
14.	19 (2)(g)	Mrs. Sandra Shroff, Vice Chairman, UPL Limited, Mumbai	Member
15.	19 (2)(g)	Dr. Murlidhar S Kurhade, Principal, DTSS Law College, Mumbai.	Member
16.	19 (2)(g)	Dr. Usha Mukundan, Ex. Principal, RJ College, Mumbai	Member
17.	19 (2)(g)	Prof. Jacinta D'souza, UM-DAE, CEBS, Mumbai	Member
18.	19 (2)(g)	Dr. Gautam Talukdar, Scientist E, Wildlife The Institute of India, Dehradun	Member
19.	19 (2)(g)	Dr. Arvind Deshmukh, President, Microbiologists Society, India	Member
20.	19 (2)(g)	Dr. Arvind Luhar, Head, Accountancy Department, IY College, Mumbai	Member

<b>21.</b>	19 (2)(g)	Dr. Amit Saraf, Head, Botany & Biotech Dept, IY College, Mumbai	Member
<b>22.</b>	19 (2)(g)	Prof. Jay Patel, Ex. Principal, Smt. CMP Homeopathic Medical College, Mumbai	Member
<b>23.</b>	19 (2)(g)	Shri. Prashant Sinalkar, Assistant Professor, GVISH, Amravati	Member
<b>24.</b>	19 (2)(g)	Dr. Tukaram Dattatray Dongale, Assistant Professor, School of Nanoscience and Biotechnology, Shivaji University, Kolhapur	Member
<b>25.</b>	19 (2)(g)	Dr. Neha M. Joshi, Librarian Ghanshyamdas Saraf College of Arts and Commerce RSET Education Campus, S. V. Road, Sundernagar, Malad (W.), Mumbai	Member
<b>26.</b>	19 (2)(h)	Dr. Sudesh Bhagwat, Solar PV Specialist Expert, DABS, Afghanistan, Alumni student, Vice-Chancellor's Nominee	Member
<b>27.</b>	19 (2)(i)	Mr. Satish Gupta, Regular Student, The Institute of Science, Mumbai, Vice-Chancellor's Nominee	Member

❖ Registrar will act as a Member Secretary of the Academic Council



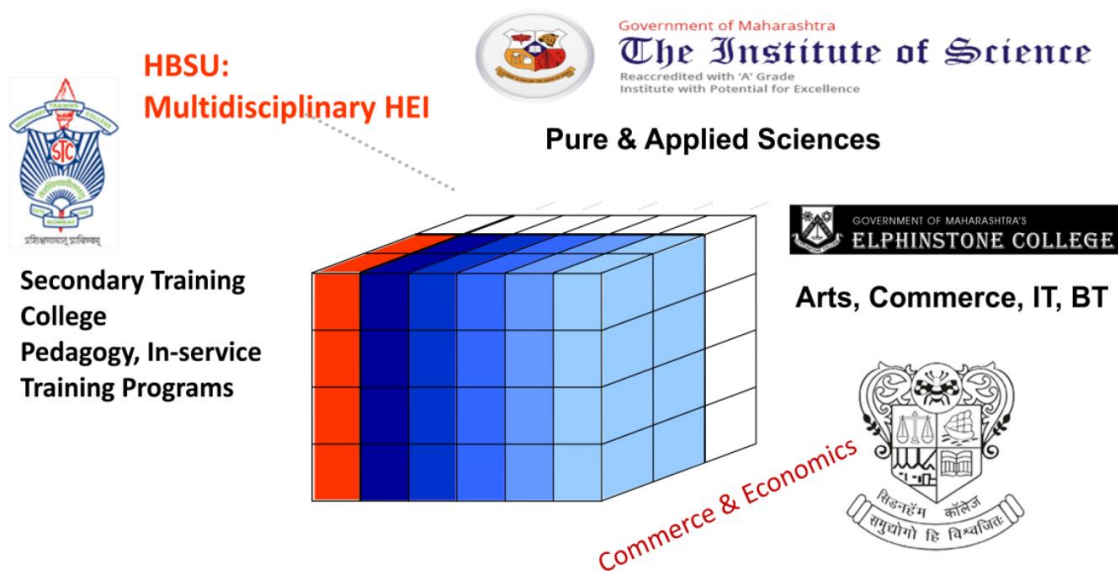
## Dr. Homi Bhabha State University, Mumbai

### Annual Report Academic Year : 2023-24

#### DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI (HBSU)

The Government of Maharashtra has established the Dr. Homi Bhabha State University, as a Cluster University, with the Institute of Science, Mumbai; Elphinstone College, Mumbai; Sydenham College, Mumbai; and Secondary Training College, Mumbai, as the Constituent Colleges. The Institute of Science, Mumbai, is the Lead Institute of the University. All the colleges are more than 99 years old; the youngest, the Institute of Science, was established in 1920, while the oldest, the Elphinstone College, was established in 1835.

The University is an independent degree-granting entity with its own Rules and Regulations. This is the first University of its kind in the State of Maharashtra and is established as per the guidelines of Rashtriya Uchatar Shiksha Abhiyan (RUSA). This University's establishment has revitalised the State's Higher Education system with new vigour. It is an ideal model of resource sharing of the constituent colleges. It is all set to equip the learners with comprehensive options for scholarly pursuits with flexibility and assist them with a student-friendly support system. HBSU has effectively implemented the choice-based credit system (CBCS) and adopted a cafeteria approach, where the students have been given the freedom to select courses from an array of courses per their preferences. All the academic programmes are dynamic and demand-driven. Most of them have built-in internships, job training and experiential learning.



## VISION, MISSION & GOALS

### Vision

"To be a premier institution of higher learning, committed to academic excellence, research, innovation, and social transformation, that prepares future leaders for a sustainable and equitable world."

### Mission

- Our mission is to provide high-quality education, foster critical thinking, communication, collaboration, creativity and encourage innovative research that leads to social transformation.
- We aim to empower our students with the necessary skills, knowledge, and values to contribute to the betterment of humankind.
- We strive to create an inclusive, diverse and welcoming environment that promotes personal growth, teamwork, ethics and leadership development.

### Motto

विश्वविद्यालयः बौद्धिकसंस्कृतेः प्रेरणास्रोतः अस्ति  
अर्थात् विद्यापीठ हे बौद्धिक संस्कृतीची प्रेरणा स्रोत असते.

### Features

- Cluster of four NAAC 'A' grade constituent colleges, geographically in proximity, managed and administered efficiently
- Constituent colleges elite HEIs, in existence for more than 100 years, & with heritage mark
- Highly subsidized fee structure enabling mass education
- Focus on Skills, Industry Partnership, CBCS, Internship, Training & Placement of the students
- Efficient & Timely Examination & Evaluation Process
- Rich Legacy with prominent Alumni network

## Distinguished Alumni: WE ARE PROUD OF THEM!



## ABOUT CONSTITUENT COLLEGES/INSTITUTE

### THE INSTITUTE OF SCIENCE, MUMBAI (ISCM)

The Institute of Science, Mumbai, formerly known as the Royal Institute of Science (RIS), was established in 1920 by the Royal Charter. It is a premier post-graduate centre for teaching and research. The I.Sc. has been identified as a centre with potential for excellence by the UG. It was reaccredited with Grade 'A' by the National Accreditation and Assessment Council (NAAC) in 2014. It is the Lead Institute of the Dr. Homi Bhabha State University.

The Institute has nine Departments – biochemistry, biotechnology, botany, chemistry, environmental Science, Mathematics, Microbiology, Physics and Zoology. It offers Masters and Research programmes in Science. The institute receives grants for infrastructure from the UGC, DST, and Government of Maharashtra. It provides excellent facilities for research. Every Department is well equipped with sophisticated instruments. The instruments include AAS, HPTLC, HPLC, GC-MS, TG/DTA, NMR, IR, XRD, PCR, and Electrochemical Workstation. Its Library is one of the finest libraries in the city and provides large number of e-resources. The Institute has Botanical Garden with rare plants. The college provides limited Hostel facilities. It gives a number of Awards, Prizes and Scholarships to meritorious students.

**Address:** 15, Madam Cama Road, Mumbai-400032

**Website:** [www.iscm.ac.in](http://www.iscm.ac.in)

**Email:** [info@iscm.ac.in](mailto:info@iscm.ac.in), [admission@iscm.ac.in](mailto:admission@iscm.ac.in) (for admission)

**Tel No:** 022-22828393

### THE ELPHINSTONE COLLEGE, MUMBAI

The Elphinstone Institution was established in 1835 under the Bombay Native Education (Trust). The enlightened citizens of Mumbai collected a sum of Rs. 2,29,636 for the Institution and the name was given as a tribute to the departing Governor of Bombay, Mountstuart Elphinstone (6th October, 1779 – 20th November, 1859). The classes commenced in 1836 and Elphinstone college separated from the High School in 1856. Thus the college was established before the establishment of the University of Mumbai; and in fact in the inception stage the classes of the University used to be held at the college. The college occupies a unique position in the annals of higher education in the country. The building of the college with its Gothic architecture has been classified as a Grade I Heritage structure. The college was awarded the Asia-Pacific Heritage Award for Culture Heritage Conservation by the UNESCO. The college has a Library with rich collection of over one lakh books. It is accredited with Grade 'A' by the NAAC.

**Website:** [www.elphinstone.ac.in](http://www.elphinstone.ac.in)

**Email:** [info@elphinstone.ac.in](mailto:info@elphinstone.ac.in), [elphinstone1856@gmail.com](mailto:elphinstone1856@gmail.com)

**Tel No:** 022-2284 4060 / 3797

### THE SYDENHAM COLLEGE OF COMMERCE AND ECONOMICS, MUMBAI

The college started on **October 22, 1913** in a small borrowed premise of Elphinstone College, and was called the Government College of Commerce. Acknowledging the contributions of Lord Sydenham, the then Governor of Bombay Presidency, towards the growth of the college, the college was named as Sydenham College. The college was shifted to the present campus in 1955.

It is the first institution offering commerce education in the Asian countries and remained to be so for a long time. It is awarded Most Trusted Brands Award by Consumer Survey Report in 2016 and Asia's Most Trusted Brand Award. Many of its graduates get selected for higher and professional studies in foreign universities. NAAC has awarded "A" grade to the college. It is recognized as the faculty development centre by the MHRD, New Delhi, in 2018.

**Website:** [www.sydenham.ac.in](http://www.sydenham.ac.in)

**Email:** [sydprincipal@yahoo.co.in](mailto:sydprincipal@yahoo.co.in)

**Tel No:** 022-220442897, 22871452

## SECONDARY TRAINING COLLEGE, MUMBAI

The Secondary Training College, Mumbai, is a premier teachers training institute in Mumbai. It was established in 1906 as per the recommendations of the Wood’s Dispatch (1854). It was a Diploma (S.T.C.) granting college, and after the permanent affiliation to the University of Mumbai it started granting B.T. degree. Since 1955 the degree granted is B.Tech., The vision of the college is to prepare excellent teachers through capacity building training. The college has well-equipped library, ultra-modern computer laboratory, and educational technology cell. The college is accredited with ‘A’ grade, CGPA 3.23 in 2015 by NAAC.

**Email:** [secondarytrainingcollege@gmail.com](mailto:secondarytrainingcollege@gmail.com)

**Tel No:** 022-22620050

### Distinguished Alumni: WE ARE PROUD OF THEM!

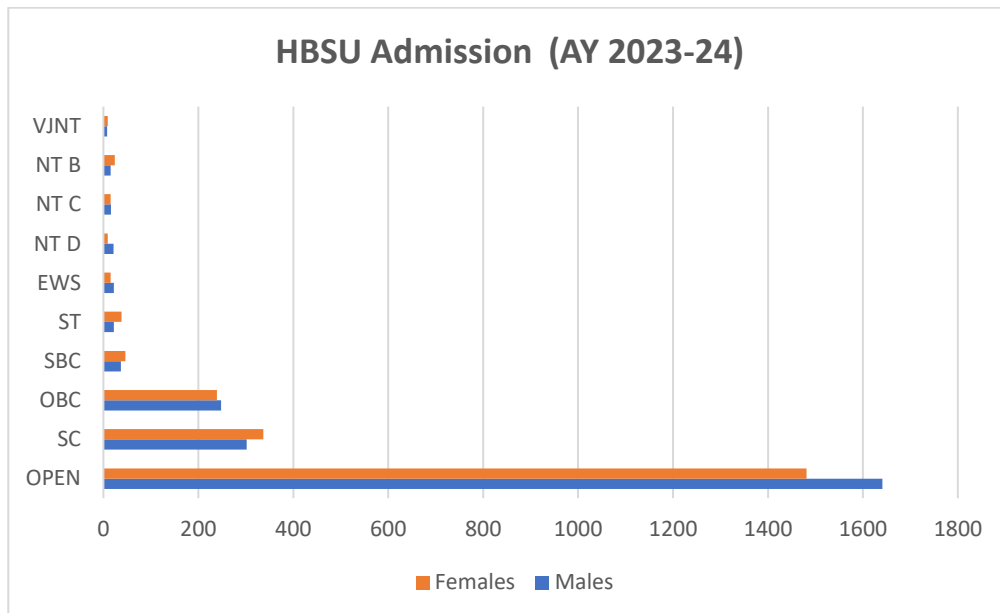


## PROMINENT ALUMNI

<p><b>PROFESSIONALS</b></p> <ul style="list-style-type: none"> <li>Bansi Mehta</li> <li>N. P. Sarda</li> <li>Rajendra Aneja</li> <li>Nirmal Manenkar</li> <li>Y. M. Kale</li> <li>Rajesh Chaturvedi</li> </ul>	<p><b>FINANCE</b></p> <ul style="list-style-type: none"> <li>Deepak Parekh</li> <li>Dadi Seth</li> <li>Uday Kotak</li> <li>Shyamal Gupta</li> </ul>	<p><b>ACADEMICIANS &amp; ECONOMISTS</b></p> <ul style="list-style-type: none"> <li>Jagdish Bhagwati</li> <li>Dr. B. S. Bhir</li> <li>Dr. B. D. Ghonsagi</li> <li>Virendra Tulzapurkar</li> <li>Dr. Indu Shahani</li> <li>Dr. P.C. Shejwalkar</li> </ul>	<p><b>POLITICS</b></p> <ul style="list-style-type: none"> <li>Milind Deora</li> <li>Omar Abdulla</li> <li>Vinod Khanna</li> <li>Mira Senyal</li> </ul>
<p><b>SPORTSMEN</b></p> <ul style="list-style-type: none"> <li>Vijay Merchant</li> <li>Neeraj Bajaj</li> <li>Uday Pawar</li> <li>Sonal Phadke</li> </ul>	<p><b>TELEVISION / ADVERTISING</b></p> <ul style="list-style-type: none"> <li>Sheetal Mallar</li> <li>Aditya Hitkan</li> <li>Swapnil Joshi</li> <li>Karishma Tanna</li> <li>Pooja Madan</li> <li>Manoj Bothra</li> </ul>	<p><b>INDUSTRIALISTS</b></p> <ul style="list-style-type: none"> <li>Kumar Mangalam Birla</li> <li>Kantikumar Podar</li> <li>Suresh Kotak</li> <li>Vijaypat Singhania</li> <li>Vikas Kasliwal</li> <li>Rajendra Mehta</li> <li>Padmanabh Mafatia</li> <li>Anirudh Dhoot</li> <li>Shallesh Sheth</li> </ul>	<p><b>CINEMA / THEATRE</b></p> <ul style="list-style-type: none"> <li>Vinod Khanna</li> <li>Juhi Chawla</li> <li>Hrithik Roshan</li> <li>Rahul Bose</li> <li>Sanjana Kapoor</li> <li>Sanjay Gupta</li> <li>Atul Agnihotri</li> <li>Sameera Reddy</li> <li>Shilamk Davar</li> <li>Uday Chopra</li> </ul>

**Number of students admitted in AY 2023-24:**

<b>Caste Category Name</b>	<b>Males</b>	<b>Females</b>	<b>TOTAL</b>
OPEN	1641	1481	3122
SC	302	337	639
OBC	248	239	487
SBC	37	46	83
ST	22	38	71
EWS	22	15	37
NT D	21	9	30
NT C	16	15	31
NT B	15	24	39
VJNT	8	9	17
<b>Total</b>	<b>2332</b>	<b>2213</b>	<b>4556</b>



### University Activities & Events in 2023-24

On April 7, 2023, Kyoto Seika University, Japan visited the university for a Cross-Cultural program



On April 7, 2023, Kyoto Seika University, Japan visited the university for a Cross-Cultural program



One week course on Research and Publication Ethics (RPE) conducted from April 01-05, 2023

**DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI**

**One Week Course**  
**Research & Publication Ethics (RPE)**  
1st April, 2023 to 5th April, 2023

**Course Schedule**

<b>Day -1 Saturday: 01/04/2023</b>		
1	Dr. Rajanish K Kamat	(RPE 01) Philosophy & Ethics Part - I 10.00 to 11.45
2	Dr. Rajanish K Kamat	(RPE 01) Philosophy & Ethics Part -II 12.00 to 1.45
<b>Lunch Break</b>		
3	Dr. Vilas Padhye	(RPE 02) Scientific Conduct Part -I 2.30 to 3.30
<b>Day -2 Sunday: 02/04/2023</b>		
1	Dr. Hemant Chandak	(RPE 03) Publication Ethics Part -I 10.00 to 11.45
2	Dr. Hemant Chandak	(RPE 03) Publication Ethics Part - II 12.00 to 1.45
<b>Lunch Break</b>		
3	Dr. Rajesh Raut	(RPE 06) Database & Research Metrics Part -I 2.15 to 5.00
<b>Day -3 Monday: 03/04/2023</b>		
1	Dr. Hiren Dand	(RPE 06) Database & Research Metrics Part -I 10.00 to 11.45
2	Dr. Hiren Dand	(RPE 06) Database & Research Metrics Part -I 12.00 to 1.45
<b>Lunch Break</b>		
3	Dr. Habib Pathan	(RPE 04) Open Access Publishing Part -I 2.15 to 4.00
4	Dr. Utkarsha Lekhak	(RPE 03) Publication Ethics Part -III 4.15 to 6.00
<b>Day -4 Tuesday: 04/04/2023</b>		
1	Dr. Ahmad Ali	(RPE 02) Scientific Conduct Part -I 10.00 to 11.45
2	Dr. Ahmad Ali	(RPE 02) Scientific Conduct Part -I 12.00 to 1.45
<b>Lunch Break</b>		
3	Dr. Habib Pathan	RPE 04) Open Access Publishing Part -II 2.15 to 4.00
<b>Day -5 Wednesday: 05/04/2023</b>		
1	Dr. Subodh Deolakar	(RPE 05) Publication Misconduct Part - I 10.00 to 11.45
2	Dr. Subodh Deolakar	(RPE 05) Publication Misconduct Part - I 12.00 to 1.45
<b>Lunch Break</b>		
3	Dr. S.B. Kulkarni	(RPE 03) Publication Ethics Part -IV 2.30 to 3.30
		Examination, Evaluation and Valedictory 3.45 to 5.00

Academic Council, HBSU meeting held on April 29, 2023 to implement NEP-2020 from academic session 2023-24



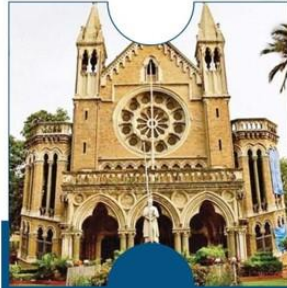
## Cross Cultural Programming Camp



DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI

京都精華大学  
KYOTO SEIKA UNIVERSITY

Cross Cultural Programming Camp conducted from May 10, 2023 for 12 week programme with Kyoto Seika University, Japan



APPLICATIONS OPEN

Launch: May 10

Duration: 12 Weeks  
(1 Session/Week)

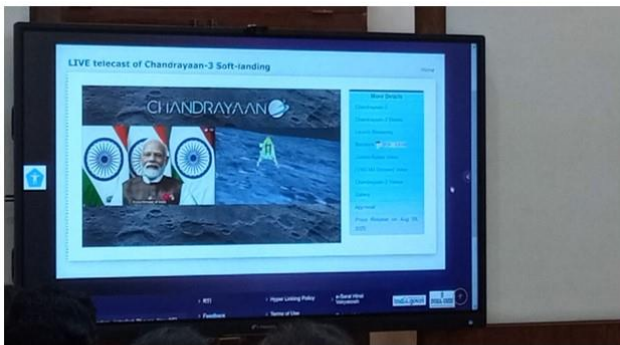
### Contact:

Dr. Vishal Banewar  
banewar@iscm.ac.in  
+91-9421743003  
Dr. Homi Bhabha State University, Mumbai

### Contact:

Mr. Akshat Kadam  
akshat.kadam@develearn.in  
+91-8097502868

Registration: <https://bit.ly/hbsu-ksu>



Chandrayaan-3 was launched aboard an LVM3-M4 rocket on 14 July 2023

All the students, Teaching and non-teaching staff of the university were present to watch through Live telecast



DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI AND  
 MAHARASHTRA STATE FACULTY DEVELOPMENT ACADEMY, PUNE  
 FACULTY DEVELOPMENT PROGRAMME  
 "LEADING THROUGH TECHNOLOGY"  
 (July 17-21, 2023)



Media Engagement

NEP 2020 Week Celebration:  
 Engaging Activities Galore  
 from 24<sup>th</sup> to 29<sup>th</sup> July, 2023



Collaborative MoU Signings

1. Biome Technologies Pvt. Ltd., Ahmednagar
2. Ismail Yusuf College Mumbai.
3. Garware Institute of Career Education and Development, Mumbai, University of Mumbai



Dr. Homi Bhabha State University, Mumbai represented in  
“मेरी माटी, मेरा देश” from 09 to 16 August, 2023



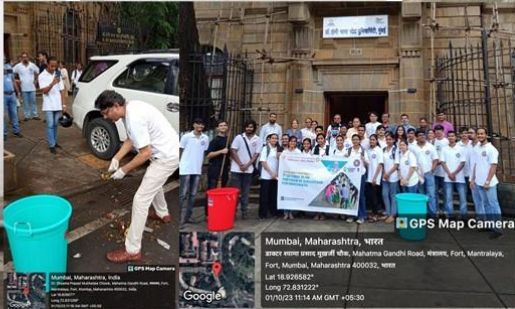
MoU signing ceremony with Society For Applied Microwave Electronics Engineering & Research (SAMEER), IIT, Mumbai held on September 13, 2023



“Swachhta Abhiyan” was organized on 1st October 2023 in all constituent colleges/ institute of the University



स्वच्छता अभियानात विद्यार्थ्यांकरित सर्तनी सहभाग घेतला.  
**भाभा विद्यापीठात स्वच्छतेचा जागर**  
मुंबई, ता. १ : 'स्वच्छता ही सेवा' असा संदेश देत डॉ. होमी भाभा राज्य विद्यापीठ आणि त्याखाली येण्याऱ्या शाळांमध्ये आणि महाविद्यालयांमध्ये स्वच्छता अभियानात सहभाग घ्यावा यासाठी जागरण घेतले आहे. या अभियानात सहभागी होण्यासाठी विद्यार्थ्यांना प्रोत्साहन देण्यात येत आहे. या अभियानात सहभागी होण्यासाठी विद्यार्थ्यांना प्रोत्साहन देण्यात येत आहे. या अभियानात सहभागी होण्यासाठी विद्यार्थ्यांना प्रोत्साहन देण्यात येत आहे.



On October 12, 2023 The Second PhD degree was awarded by the university





Webinar  
"Zero Tolerance towards Ragging & Sexual Harassment"  
on  
14<sup>th</sup> October, 2023 (Saturday) 11:00 am  
Organized by  
IQAC, Dr. Homi Bhabha State University, Mumbai  
SPEAKERS: Adv. Tanoj Joshi, Adv. Shivani Gautam



MoU signing ceremony with University of Mumbai held on October 19, 2023



DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI

HBSU

ALL INDIA MSME ASSOCIATION (aima-MSME)

Cordially invite you for the "MOU SIGNING CEREMONY"

Monday — 01:00 PM  
30.10.2023

Venue:- E-learning Studio, Dr. Homi Bhabha State University, In Front of Chh. Shivaji Maharaj Museum, M.G. Road, Mumbai - 400 001.

Your presence will make this event more special. A line in confirmation will be appreciated.




MoU signing ceremony All India MSME Association (aima-MSME) held on October 30, 2023



Dr. Homi Jehangir Bhabha Birth Anniversary Celebration was held on October 30, 2023





Are you ready to embark on an exploratory journey into the realm of Artificial Intelligence?

Join our comprehensive program ..

**MSFA** Maharashtra State Society Development Academy

**HBSU** Dr. Homi Bhabha State University

**INTRODUCING THE EDUCATORS TO AI IN CLASSROOMS**

A 5-day residential program to introduce educators to the knowledge and skills needed to harness the power of Artificial Intelligence in education.

**COURSE COORDINATOR** Prof. (Dr.) Vilas Padhye, Registrar, HBSU vilaspadye@elphinstone.ac.in

**TOPICS**  
AI, Machine Learning, Deep Learning, Artificial Neural Networks, Deep Neural Networks, Natural Language Processing, Large language models, and generative AI. Using case studies, Python coding, data Analytics.

**REGISTRATION**  
INR 1000/- non-refundable, non-transferable  
<https://forms.gle/4qZpYz7dmo1sL2X8>

**DATES** OCT 30 - NOV 3, 2023

**VENUE** MSFDA, Pune  
MSFDA programs are eligible for CAS.

Centre for Evaluation and Assessment ☎ 73910 00723 📧 dhanupadwal.msfda@gmail.com

**INTRODUCING THE EDUCATORS TO AI IN CLASSROOMS**  
A 5-day residential program to introduce educators to the knowledge and skills needed to harness the power of Artificial Intelligence in education



On December 09 2023, dignitaries and delegates of SAMEER, IIT, Bombay visited the university.



On December 11, 2023, Viksit Bharat @2047: Voice of Youth Program was attended by University Office Bearers, Deans, Principals/ Director, Heads of Departments, teaching and non-teaching staff and students of all constituent colleges of the university.





On December 12, 2023,  
Padma Vibhushan Prof. M. M. Sharma, Emeritus Professor  
of Eminence and Former Director ICT, Mumbai

Padma Vibhushan Dr. R. Chidambaram, Former Chairman,  
AEC, Director, BARC; Principal Scientific Advisor to the GoI

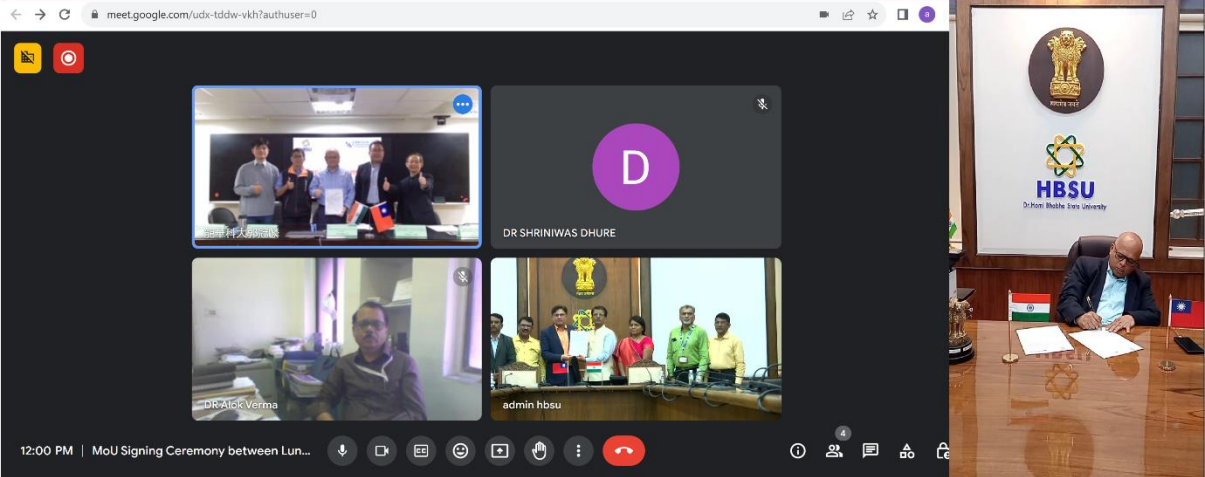
Padmashri Prof. G. D. Yadav, National Science Chair  
(SERB/DST/GoI), Emeritus Professor of Eminence

Visited the University



On December 12, 2023,  
Demonstration and Hands on Training  
Set-up towards Efficient and User-  
Friendly Urban Agriculture Integrating  
Automation Practices

Memorandum of Understanding (MoU) Forges Educational Collaboration Between Dr.Homi Bhabha State University (HBSU), Mumbai, India, and Lunghwa University of Science and Technology (LHU), Taiwan



लोकमत
भारत शिकणार आता तैवानचे सेमीकंडक्टर तंत्र उद्योगाच्या विकासासाठी 'मिले सूर मेरा तुम्हारा'

डॉ. होमी भाभा विद्यापीठाचा तैवानमधील संस्थेशी करार
म. टा. खास प्रतिनिधी, मुंबई
डॉ. होमी भाभा स्टेट युनिव्हर्सिटी, मुंबई आणि तैवानमधील लुंगवा युनिव्हर्सिटी ऑफ सायन्स अँड टेक्नोलॉजी यांच्यात सामंजस्य करार झाला आहे.

सेमीकंडक्टर, आयसीसाठी शोधकार्य, भाभा आणि लुंगवा विद्यापीठात करार
डॉ. होमी भाभा स्टेट युनिव्हर्सिटीचे कुलसूत्र डॉ. कामत यांची माहिती
लुंगवा युनिव्हर्सिटी ऑफ सायन्स अँड टेक्नोलॉजीची स्थापना झाली. सायन्य या विद्यापीठात अभियांत्रिकी महाविद्यालय, संगणक विज्ञान आणि इलेक्ट्रॉनिक्स अभियांत्रिकी महाविद्यालय, आणि मानव विज्ञान महाविद्यालय या चार सदस्य संस्थांशी संलग्न १४ विद्याशाखा आहे.



Helio Mumbai Page No. 4 Dec 14, 2023 Powered by: enago.com



भारतीय व पाश्चात्य तत्त्वज्ञानाचे अभ्यासक, थोर विचारवंत व एलफिन्स्टन महाविद्यालयाचे माजी विद्यार्थी मेघश्याम पुंडलिक रेगे (मे. पुं. रेगे) यांचा स्मृतिदिन दिनांक २८ डिसेंबर, २०२३ रोजी साजरा करण्यात आला

निमित्त स्मृतिदिनाचे... डॉ. होमी भाभा राज्य विद्यापीठाचे कुलसूत्र डॉ. रजनीश कामत यांचे आवाहन
मे. पुं. रेगे यांची सामाजिक बांधिलकी सर्वांनी जपावी
मुंबई, मे. २८ : मे. पुं. रेगे यांची अस्मरणासाठी शिकणार आता तैवानचे सेमीकंडक्टर तंत्र उद्योगाच्या विकासासाठी 'मिले सूर मेरा तुम्हारा' या संकल्पनेतून तैवानमधील लुंगवा युनिव्हर्सिटी ऑफ सायन्स अँड टेक्नोलॉजी यांच्यात सामंजस्य करार झाला आहे.





Dr. Homi Bhabha State University, Mumbai won second prize in the **ANVESHAN 2023** at **Kolhapur** in the Engineering and Technology Category was held from December 28 to 29, 2023



**MEMORANDUM OF UNDERSTANDING (MoU) BETWEEN DR. HOMI BHABHA STATE UNIVERSITY (HBSU), MUMBAI, INDIA AND MING CHI UNIVERSITY OF TECHNOLOGY, TAIWAN**



Workshop conducted on 05.01.2024 for guidance on submission of confidential reports of teachers and non-teaching staff of constituent colleges/institutions on MahaPAR system





The University participated in the Avishkar-2024: 16th Maharashtra State Inter-University Research Convention held at Maharashtra University of Health Sciences, Nashik from 12th to 15th January, 2024.



A MoU signing ceremony was held on January 25, 2024 with several institutes/organizations and industries.

1. P.U. Educational Service and Sydenham College
2. IDBI Intech Limited and Sydenham College
3. Aptech Learning Mazgaon Center and Sydenham College
4. ATA Freight Line India Pvt. Ltd.
5. National Association of Software and Service Companies (nasscom / IT-ITeS SECTOR SKILLS COUNCIL)
6. Politechno Support Services Pvt. Ltd.
7. MPI Healthcare Educations Pvt. Ltd.
8. Raj Software Technology (India) Ltd.
9. Keyman Capital Pvt. Ltd.
10. MPOWER, a mental health initiative of Aditya Birla Education Trust
11. NCDEX Institute of Commodity Markets and Research (NICR)
12. National Institute of Foreign Trade, Andheri, Mumbai (NIFT)
13. GRAND ACADEMIC PORTAL (GAP) India
14. Agastya International Foundation (AGASTYA), Bangalore

MoU signing ceremony with Maharashtra Economic Development Council (MEDC) held on February 05, 2024




**MoU Signing Ceremony with Maharashtra Economic Development Council (MEDC)**

MoU signing ceremony with Changu Kana Thakur Arts, Commerce and Science College, New Panvel held on February 06, 2024




**MoU Signing Ceremony with Changu Kana Thakur Arts, Commerce and Science College, New Panvel (Autonomous)**

 **DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI** 

All the Faculty, Researchers & Students,  
Dr. Homi Bhabha State University, Mumbai  
& Institute of Forensic Science, Mumbai

We are thrilled to invite you to an enriching session at the intersection of knowledge and innovation. Homi Bhabha State University, Mumbai, is delighted to host an Interactive Science Talk featuring the distinguished scientist and innovator, **Dr. Ashok Gadgil**.



**EXPLORING FRONTIERS IN SCIENCE  
AN INTERACTIVE SESSION WITH  
DR. ASHOK GADGIL**

Join us for an evening of scientific exploration, insightful discussions, and networking opportunities. We look forward to your participation in this intellectually stimulating event.

<https://vcresearch.berkeley.edu/ufaculty/ashok.gadgil>

**Date: February 7, 2024**  
**Time: 2.00 pm (IST)**  
**Venue: Room no. 36, Department of Chemistry, The Institute of Science, Mumbai**

**Engage... Learn... Connect...**

**Hosted by**  
Internal Quality Assurance Cell (IQAC),  
Dr. Homi Bhabha State University, Mumbai

**Co-Host**  
The Institute of Science, Mumbai  
Institute of Forensic Science, Mumbai

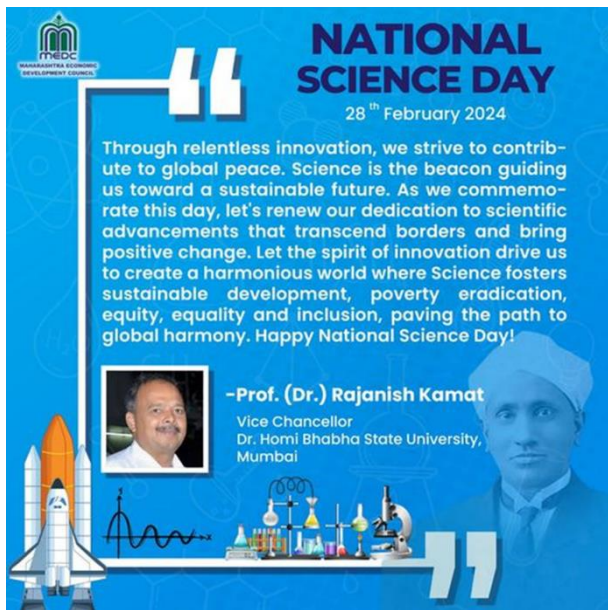






Two days (6 hours) workshop on 'Holistic Approach to Humane Education' held on 26 & 27 February, 2024





MoU signing ceremony with Divya Path Sansthan (DPS), Madhya Pradesh held on March 01, 2024



## **ELECTORAL LITERACY CLUB**

### **Promoting Democratic Values and Youth Participation**

---

#### BRIEF HISTORY OF INDIA'S CONTRIBUTION TO DEMOCRACY

1. **Early Democratic Practices:**

Ancient India exhibited early forms of democratic governance during the Vedic period (1500 BCE - 500 BCE) and later in the Maurya and Gupta empires. Councils such as "Sabhas" and "Samitis" served as platforms for collective discussions and decision-making. The concept of "Sarvajanik" (public) assemblies symbolizes participatory democracy.

2. **Republics and City-States:**

Ancient India was home to republics like the Lichchhavis, Vajjis, Mallas, and Shakya states. These entities featured assemblies and councils where citizens actively participated in governance, emphasizing decentralized decision-making and consensus-building.

3. **Dharmashastra and Legal Codes:**

Texts like Kautilya's *Arthashastra* and the *Manusmriti* established guidelines for governance. These works underscored the rule of law, justice, and ruler accountability—cornerstones of democratic ideals.

4. **Local Self-Government:**

Village assemblies, or "Gram Sabhas," played a crucial role in ancient India's local governance. They handled community issues, resolved disputes, and encouraged collective decision-making, laying the foundation for grassroots democracy.

5. **Philosophical Foundations:**

Philosophies such as Buddhism and Jainism advocated equality, non-violence, and social justice. These values influenced governance practices and societal attitudes, promoting inclusivity and respect for individual rights.

---

#### EARLY GREEK CONTRIBUTION TO DEMOCRACY

1. **City-States (Polis):**

Ancient Greece consisted of independent city-states, or "polis," with Athens standing out for its democratic experiments.

2. **Citizenship and Participation:**

Athenian democracy allowed adult male citizens to actively participate in governance by attending assemblies, serving on juries, and holding public office. Though limited in scope, this system laid a foundation for participatory governance.

3. **Rule of Law:**

The Greeks introduced the concept of the rule of law, ensuring that all citizens, including rulers, were subject to the law. This principle promoted fairness and accountability.

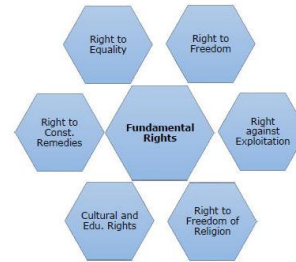
4. **Trial by Jury:**

Athenian democracy featured juries of randomly selected citizens to decide legal cases, fostering impartiality and citizen involvement in justice.

---

## WHY DEMOCRACY MATTERS

1. Ensures fundamental rights and freedoms.
2. Allows for peaceful transitions of power.
3. Encourages accountability and transparency in governance.



**Fundamental Rights of Indian Constitution**

## IMPORTANCE OF YOUTH PARTICIPATION

1. **Youth as the Future of the Nation:**  
The active involvement of young people ensures continuity in democratic practices.
2. **Fresh Perspectives and Ideas:**  
Youth bring innovative approaches to problem-solving and governance.
3. **Ensuring Representation of Diverse Voices:**  
Youth participation ensures inclusivity and representation of varied perspectives.

**YOUTH  
for  
DEMOCRACY**



## ACTIVITIES



understand the electoral process and the significance of informed voting.

1. **Voter Registration Drives:**  
Encourage and assist students and young citizens in registering to vote.
2. **Workshops on Democratic Values and Rights:**  
Conduct educational sessions on the principles of democracy and the rights and responsibilities of citizens.
3. **Debates and Discussions on Current Political Issues:**  
Facilitate open forums for youth to engage with and discuss pressing political and societal matters.
4. **Mock Elections and Polling Simulations:**  
Organize practical exercises to help students

**REGISTRATION DRIVE**



**DISCUSSION FORUM**



**LECTURE ON ELECTORAL AWARENESS**



## National Social Service Activities

### 1. Tree Plantation:

- No. of saplings/trees planted: 275
- No. of NSS Volunteers involved: Male-67, Female-98, Total-165



### 2. Blood Donation Camps:

- No. of camps held: 02
- No. of NSS participants/Blood donors: Male-75, Female-64, Total-139
- No. of Blood Bottles/unit donated/collected: 72



**Blood Donation Drive at Elphinstone College, Mumbai**



**Blood Donation Drive at Sydenham College, Mumbai**



**4. Participation in Health/Eye/Thalassemia/Immunization Camps/Vaccination:**

- **No. of Camps held:** 01
- **No. of NSS Volunteers participated:** Male-45, Female-66, Total-111

**5. Awareness Programmes/Rallies/Campaigns/Swachhata Abhiyan:**

- **No. of Programmes:** 07
- **No. of NSS Volunteers participated:** Male-78, Female-93, Total-171



**6. Shramdhan:**

- **No. of Programmes:** 09
- **No. of NSS Volunteers participated:** Male-74, Female-103, Total-177
- **No. of volunteer hours devoted to Shramdhan:** 60



**7. Disaster Management Training:**

- **No. of volunteers Trained:** 01
- **No. of NSS Volunteers participated:** Male-46, Female-55, Total-101

8. **Organization- Major activities at University level/Unit level:**
  - **Tree Plantation Drive**
    - **Venue:** University campus
    - **Participants:** Male-69, Female-84, Total-153
  - **Cleanliness Drive**
    - **Venue:** M.G. Road, Mumbai
    - **Participants:** Male-57, Female-62, Total-119
9. **Best Practices or NSS Success Stories of NSS in University during the current Year:** Even being a small unit from two different colleges, coordination among the units is maintained through regular university-level activities. Resources and event organizing machinery are shared equally.

## Village Adoption

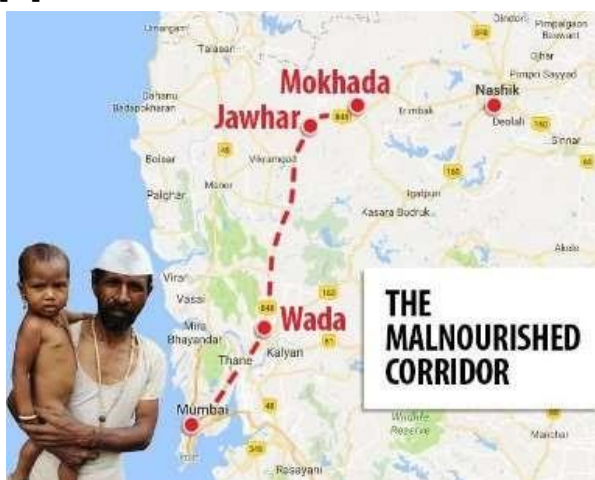
**HBSU has adopted Mokhada, Dist. Palghar for Empowering Women and Senior Citizens for Digital Financial Inclusion and Cybersecurity Awareness. A similar program is also conducted in Beed Dist. Latur. Series of such programs are planned in the remote areas through CSR support.**

**Report of Sensitization Program on Upskilling & Empowering Women and Senior Citizens for Digital Financial Inclusion and Cybersecurity Awareness in Mokhada, District Palghar during 13<sup>th</sup> February 2024 to 16<sup>th</sup> February 2024.**

The sensitization program on Upskilling & Empowering Women and Senior Citizens for Digital Financial Inclusion and Cybersecurity Awareness in Mokhada, District Palghar was conducted successfully from February 13 to February 16, 2024. The program was aimed sensitized about financial literacy, and raise awareness about cybersecurity among women and senior citizens in the community from the Mokhada, region.

Reason to Select Venue:

Mokhada, the second smallest taluka in Palghar, Maharashtra, is home to 59 villages. The heartbeat of life in this region is the tribals, primarily belonging to the Warli and Katkari tribes, constituting a staggering 92% of the population. These tribal communities have



harmoniously coexisted with nature for generations, relying on farming as their primary means of sustenance and drawing wisdom from the land's timeless embrace.

In the quaint tribal taluka of Mokhada, nestled in the majestic Sahyadri hills, a tale of transformation unfolds. For years, the villagers of Botoshi and neighboring hamlets lived in perpetual fear of the rains. Tragic incidents, such as a tribal woman losing her newborn twins due to complications arising from pregnancy, highlighted the urgent need for better connectivity. Connectivity remains intact even during heavy downpours, bringing relief and hope to these communities.

The tribes of Mokhada continue to live

in harmony with nature, drawing strength from their ancestral lands and traditions.

So, as a social responsibility, these women's and senior citizens need Upskilling & Empowerment in financial literacy and information about cyber security.

### Objectives:

**Digital Financial Inclusion:** To educate women and senior citizens on the benefits and usage of digital financial tools and financial inclusion.

**Upskilling:** To provide training sessions and workshops that enhance digital literacy and skills for effective utilization of digital platforms.

**Cybersecurity Awareness:** To create awareness about the importance of cybersecurity, safe online practices, and protection against digital fraud.



**Photograph: Expert Trainers for the Program Program Activities:**

**Interactive Q&A Sessions:**

Participants had the opportunity to ask questions and seek clarification. Engaging discussions to address specific concerns and challenges.



**Photograph: Showcasing support of ATA Freight Pvt. Ltd.**

## **Annual Report: Internship Cell**

### **Dr. Homi Bhabha State University, Mumbai**

#### **Academic Year: 2023-24**

It is my privilege to introduce the Internship Cell of Dr. Homi Bhabha State University, Mumbai, an initiative at the forefront of our commitment to integrating practical experience with academic learning. As the Nodal Officer of the Internship Cell, I am proud to share our vision, objectives, and the significant strides we have made in the academic year 2023-24.

The National Education Policy (NEP) 2020 has made internships an essential and mandatory component of the student curriculum, recognizing their significance in fostering overall growth and development. In alignment with this policy, Dr. Homi Bhabha State University has established an Internship Cell. This initiative aims to provide students with practical experience, enhancing their skills and preparing them for future professional challenges.

Recognizing that hands-on experience bridges the gap between theoretical knowledge and real-world application, the Internship Cell was established in response to the directives of the NEP 2020 and the Government Resolution (GR) of the Department of Higher and Technical Education, Government of Maharashtra. The Internship Cell is dedicated to providing students with opportunities to enhance their skills, adaptability, and professional readiness..

#### **Activities and Achievements (2023-24)**

##### **1. Planning and Strategy Development:**

The year began with a series of developmental meetings to outline the structure and operational strategies of the Internship Cell. We introduced a "parachute model" to streamline operations and published a detailed working strategy, complete with guidelines and a procedure booklet accessible on our digital portal.

##### **2. Student-Guide Allocation:**

A comprehensive student-guide allocation system was implemented to ensure personalized guidance and support throughout the internship journey. Each student was paired with an academic guide for continuous mentorship.

##### **3. Data Collection and Partnerships:**

Our database was expanded through collaborations with various organizations and industries via Memorandums of Understanding (MoUs), alumni networks, and other stakeholders. These efforts broadened the scope of diverse internship opportunities for students.

##### **4. Orientation Programs:**

Orientation sessions were conducted across all colleges, familiarizing students and guides with the internship structure, workflow, and evaluation process.

##### **5. Internship Search Assistance:**

Faculty guides actively assisted students in securing internships by leveraging our extensive database and industry connections.

**6. Evaluation Rubrics Development:**

Detailed evaluation rubrics for both industry and college guides were developed to ensure a standardized and fair assessment process.

**7. Soft Skills Workshops:**

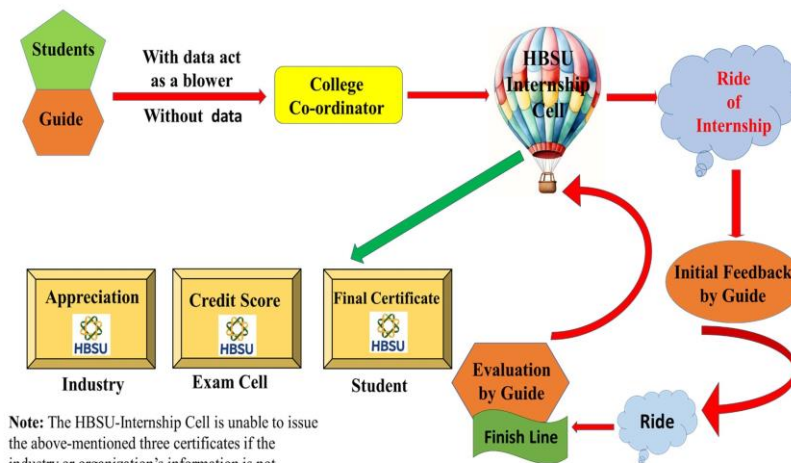
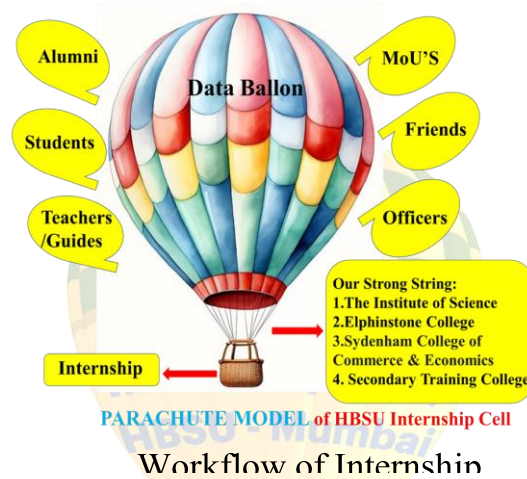
Recognizing the importance of professional competencies, workshops were organized to enhance students' communication, teamwork, and professional etiquette skills.

**8. Feedback Mechanisms:**

An initial feedback system was introduced to monitor student progress and address concerns during their internships.

**9. Experience Sharing and Evaluation:**

Post-internship, students shared their experiences through detailed reports and presentations. This initiative culminated in an experience-sharing competition titled "My Internship... My Journey," which celebrated students' achievements and insights.



Note: The HBSU-Internship Cell is unable to issue the above-mentioned three certificates if the industry or organization's information is not present in the Data Ballon.

**Pathway of Internship**

### Glimpses of the program





## Outcomes and Impact

The Internship Cell has successfully positioned itself as a catalyst for preparing students to face the challenges of the professional world. Through strategic initiatives and continuous support, students have gained the skills and experiences necessary to excel in diverse and dynamic environments. The overwhelmingly positive feedback from students and industry partners highlights the impact and success of our efforts.

## Acknowledgements

I extend my sincere gratitude to the Hon'ble Vice Chancellor for his guidance and support. I also thank my colleagues, faculty members, industry partners, and the dedicated members of the Internship Cell for their untiring collaboration. Together, we are shaping the future of our students, equipping them with the tools necessary for professional success.

**Dr. Shubhangi Patil**  
Nodal Officer, Internship Cell  
Dr. Homi Bhabha State University, Mumbai

## Status of NEP Implementation

### 1. New Credit Curriculum Implementation

- **NEP Compliant UG Programs:** 22
- **NEP Compliant PG Programs:** 13

#### **Innovative Indian Knowledge Systems (IKS) Programs:**

- *Ayurveda and Medicinal Plants*
- *Vedic Chemistry*
- *Development of Mathematics in India*
- *Herbal Sciences*
- *Physics in Ancient India*
- *India and its relations with animal husbandry*
- *Science & Technology in Ancient India*
- *Essence of Indian Traditions and Knowledge*
- *Indian Ethos & Management Thoughts*
- *Fitness and Yoga*
- *Indian Accounting System*
- *Indian Business Value System*
- *Meditational Therapy and Stress Management*
- *Indian Economic Thoughts*
- *Development of Indian Geography*
- *Indian & Global: Myths & Mythology*
- *Indian Culture and Legacy*
- *Jataka Stories*
- *Philosophy of Indian Constitution*
- *Psychology in Ancient India*
- *Understanding Sustainable Development*

#### **MOOCs Developed:**

- Total MOOCs developed: 131
  - *e-PGPATHSHALA:* 43
  - *UG Forensic Science through CEC Sagar:* 53
  - *UG Criminology through CEC Sagar:* 35
  - MOOCs through Smartbridge (operated by IIT Madras):
    - *Artificial Intelligence*
    - *Applied Data Science*
    - *Backend Development (Java Spring Boot)*
    - *Cyber Security Analyst*
    - *Android Application Development (with Kotlin)*

### 2. New Credit Curriculum Implementation Status in Universities and Autonomous Colleges

- **University Name:** Dr. Homi Bhabha State University, Mumbai
  - **Approval Completed:** Yes
  - **UG & PG Level:**
    - **UG:**
      - Academic Council Approved: 04/11/2023
      - BoD Approved: 13/12/2023
      - BoS Approval Dates: 24/06/2023 to 15/10/2023 (26/09/2023, 26/10/2023, 04/11/2023, 08/08/2023)
    - **PG:**
      - Academic Council Approved: 13/12/2023

- BoS Approval Dates: 24/06/2023 to 15/10/2023 (26/09/2023, 26/10/2023, 04/11/2023, 08/08/2023)

### 3. Academic Bank of Credit (ABC) Implementation

- **Registered on NAD:** Yes
- **Registered on ABC:** Yes
- **Year 2022-23:**
  - No. of Students Enrolled: 4453
  - Total Records Uploaded: 8773
  - Total Degrees Uploaded: 1962
  - Total Mark Sheets Uploaded: 6811
  - ABC Accounts Created: 3428
  - No. of Students with Credit Data: 1174
- **Year 2023-24:**
  - No. of Students Enrolled: 4468

### 4. IKS Courses Integration

- **Total IKS Courses Implemented:** 23
- **Courses:**
  - *Ayurveda and Medicinal Plants*
  - *Vedic Chemistry*
  - *Development of Mathematics in India*
  - *Herbal Sciences*
  - *Physics in Ancient India*
  - *India and its relations with animal husbandry*
  - *Science & Technology in Ancient India*
  - *Essence of Indian Traditions and Knowledge*
  - *Indian Ethos & Management Thoughts*
  - *Fitness and Yoga*
  - *Indian Accounting System*
  - *Indian Business Value System*
  - *Meditational Therapy and Stress Management*
  - *Indian Economic Thoughts*
  - *Development of Indian Geography*
  - *Indian & Global: Myths & Mythology*
  - *Indian Culture and Legacy*
  - *Jataka Stories*
  - *Philosophy of Indian Constitution*
  - *Psychology in Ancient India*
  - *Understanding Sustainable Development*

### 5. Translation of Books

- **Marathi Translations:**
  - SYBCOM – COMMERCE III Management
  - TYBCOM – COMMERCE V Marketing
  - TYBCOM- COMMERCE VI Human Resource Management
  - STRATEGIC MANAGEMENT – MCOM
  - E-COMMERCE - MCOM

### 6. Future Outlook and Skill Development

- **Quality Assurance and Support Services:**
  - Regular audits and assessments
  - Academic advising, career counseling, and mental health resources
- **Integration of NEP-2020:**

- 100% NEP Compliant: Credit transfer, holistic skills, and job-ready programs
- Industry partnerships and internships
- **Skill Development Programs:**
  - Leadership development initiatives
  - Student clubs fostering service and civic engagement
- **Centres and Cells:**
  - Centre for Computational Linguistics
  - Indian Language, Culture and Arts Cell
  - Fintech Incubation Centre (under CSR Funds)
  - Research & Incubator MSME
  - Industry Academic Integration and Skill Development Cell
  - Online Education and LMS Cell
  - Teachers Re-Skilling Cell
  - Research Development Cell
  - Institutional Development Plan (IDP) Cell
  - Activity Club
  - International Students Cell
  - Cell for differently abled students and SEDGs
  - Mentoring & Counseling Cell

## **Report on School Connect Campaign Organized by Dr. Homi Bhabha State University, Mumbai 15th to 31st January, 2024**

### **Objective:**

The School Connect Campaign, conducted by Dr. Homi Bhabha State University, aimed to create awareness among school students especially class 12 students about the positive impact of the National Education Policy (NEP) 2020. This initiative was carried out in alignment with the Government of Maharashtra's instructions to disseminate information and engage students in understanding the transformative changes in the education system.

### **Activities Undertaken:**

**Orientation Sessions:** Conducted orientation sessions at various schools to provide detailed insights into the key features and positive aspects of NEP-2020.

**Interactive Workshops:** Organized interactive workshops focusing on the changes in the curriculum, assessment patterns, and the flexibility provided by NEP-2020 to empower students in making informed academic decisions.

**Career Path Counselling:** Offered career guidance sessions to class 12 students, highlighting the relevance of NEP-2020 in aligning education with career goals and aspirations.

**Information Dissemination:** Distributed informative pamphlets, brochures, and digital materials explaining the advantages of NEP-2020 and how it positively impacts the educational journey of class 12 students.

### **Outcomes:**

**Increased Awareness:** Successfully increased awareness among class 12 students about the key provisions and positive changes introduced by NEP-2020.

**Informed Decision-Making:** Empowered students with information to make informed decisions regarding their educational paths, taking into consideration the flexibility and holistic approach promoted by NEP-2020.

**Positive Feedback:** Received positive feedback from students and educators, indicating a better understanding and appreciation for the educational reforms outlined in NEP-2020.

### **Challenges and Recommendations:**

**Communication Challenges:** Addressed some challenges in effectively communicating complex policy changes. Future initiatives should focus on simplifying information for better understanding.

**Sustainability:** To sustain the impact of the awareness campaign, it is recommended to incorporate NEP-2020-related content into the regular school curriculum and conduct periodic follow-up sessions.

### **Conclusion:**

The School Connect Campaign organized by Dr. Homi Bhabha State University successfully achieved its goal of creating awareness among class 12 students about the positive impact of NEP-2020. The engagement activities and feedback received indicate that the initiative has contributed to informed decision-making and a better understanding of the transformative changes in the education system. Continued efforts are recommended to ensure the sustained impact of the campaign on students' educational journeys.

**List of Mater trainers with School/College**

<b>Name of the Master trainer</b>	<b>Name of School/College/Institute schedule to visit/visited for Campaign</b>	<b>Taluka</b>	<b>District</b>	<b>No. of Students Targeted</b>	<b>Date</b>
Prof. Rajnish K Kamat	KLE College , Kalamboli,	Uran	Panvel	450	15/01/2024
Prof. S.B.Kulkarni	KLE College , Kalamboli,	Uran	Panvel	450	15/01/2024
Prof. Vasant Helavi Reddy					
Prof. S.B.Kulkarni	Sheth J N PALIWALA COMMERCE COLLEGE, Science and Arts college, And junior college,Pali	Sudhgad	Raigad	225	17/01/2024
Prof. Ajay Chaudhari	Sheth J N PALIWALA COMMERCE COLLEGE, Science and Arts college, And junior college,Pali	Sudhgad	Raigad	225	17/01/2024
Dr. Vishal Banewar	Sheth J N PALIWALA COMMERCE COLLEGE, Science and Arts college, And junior college,Pali	Sudhgad	Raigad	225	17/01/2024
Prof. S.B.Kulkarni	Atmonnati Vidymandir and Junior College, Janmbhulpada	Sudhagad	Raigad	65	17/01/2024
Prof. Ajay Chaudhari	Atmonnati Vidymandir and Junior College, Janmbhulpada	Sudhagad	Raigad	65	17/01/2024
Dr. Vishal Banewar	Atmonnati Vidymandir and Junior College, Janmbhulpada	Sudhagad	Raigad	65	17/01/2024
Dr. Shubhangi Patil	Maharshi Dayanand College of Arts Science and Commerce, Parel Mumbai	Mumbai	Mumbai	98	17/01/2024
Dr. Rajesh Raut	Maharshi Dayanand College of Arts Science and Commerce, Parel Mumbai	Mumbai	Mumbai	98	17/01/2024
Dr. Vijay G. Chawale	Navneet College, Mumbai Central, Mumbai	Mumbai	Mumbai	45	16/01/2024
Dr. Sunil Singh	A. E. Kalsekar College of Arts and Commerce, Nalasopara East				
Prof. Aparna Saraf	Ismail Yusuf College	Mumbai	Mumbai	120	19/01/2024
Mrs Sangeeta Joshi	Ismail Yusuf College	Mumbai	Mumbai	120	19/01/2024
Dr Radhika Iyer	Ismail Yusuf College	Mumbai	Mumbai	120	19/01/2024
Prof. Ulhas K. Patil	Voluntary Arts, Commerce and Science Junior College, Shahada, Dist Nandurbar	Shahada	Nandurbar	150	27/01/2024
Prof. Ulhas K. Patil	R.C. Patel ASC College Shirpur Dist Dhule	Shirpur	Dhule	100	29/01/2024
Mr. Rajendra G. Choure	New English School and Jubiior College	Parner	Ahmednagar	250	16/01/2024

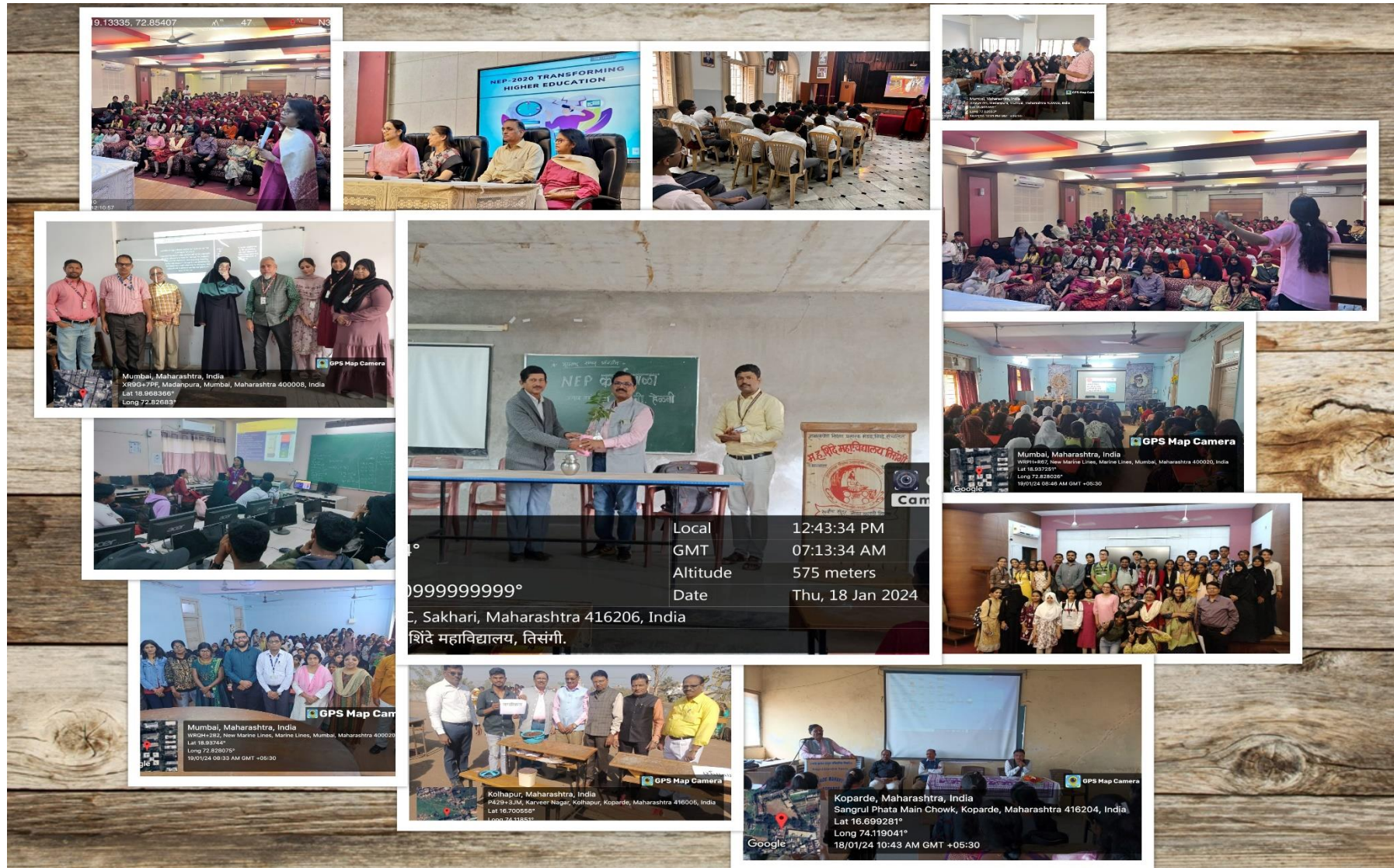
<b>Name of the Master trainer</b>	<b>Name of School/College/Institute schedule to visit/visited for Campaign</b>	<b>Taluka</b>	<b>District</b>	<b>No. of Students Targeted</b>	<b>Date</b>
Mr. Rajendra G. Choure	Mulikadevi Vidya, Manadir Junior College	Nighoj	Ahmednagar	250	17/01/2024
Mr. Rajendra G. Choure	New Arts Science and Commerce Colege	Parner	Ahmednagar	60	17/01/2024
Dr. Vijay G. Chawale	SNDT College of Arts and SCB college of Commerce And Science Churchgate Mumbai-20	Mumbai	Mumbai	105	19/01/2024
Dr. Khushpat S. Jain & Dr. Jharna Kalra	<b>Siddharth College of Commerce and Economics</b>	Mumbai	Mumbai		19/01/2024
Dr. Khushpat S. Jain & Dr. Jharna Kalra	Gilder Road Secondary Municipal School	Mumbai	Mumbai		18/01/2024
Dr. Khushpat S. Jain & Dr. Jharna Kalra	Y. J. S Night College of Commerce				
Dr. Smita R. Kuntay & Atish Waghchaure	R.M.M.High School,Grant Road, Mumbai.	Mumbai	Mumbai	45	20/01/2024
Dr. Vijay G. Chawale	SHRI. V.V.K. Sharma Junior College, Currey Road, Mumbai-400 013	Mumbai	Mumbai	32	19/01/2024
Prof. Rohidas B Kale	Maharshi Dayanand College of Arts, Commerce and Science college, Parel, Mumbai				
Prof. Anamika Vitthal Kadam	Mumbai Junior College, Wadala	Mumbai	Mumbai	105	18/01/2024
Prof. Anamika Vitthal Kadam	NKES Junior College, Dadar, Mumbai	Mumbai	Mumbai	85	18/01/2024
Smt. Roshani Dattatrey Yeola	Maharshi Dayanand College of Arts, Commerce and Science college(Unaided section), Parel, Mumbai	Mumbai	Mumbai	250	23/01/2024
Dr. Nikita Vinod Thakare	Maharshi Dayanand College of Arts, Commerce and Science college(Unaided section), Parel, Mumbai	Mumbai	Mumbai	250	23/01/2024
Smt. Roshani Dattatrey Yeola	Lala Lajpatrai College of Commerce and Economics, Mumbai	Mumbai	Mumbai	200	24/01/2024
Dr. Nikita Vinod Thakare	Lala Lajpatrai College of Commerce and Economics, Mumbai	Mumbai	Mumbai	200	24/01/2024
Prof. Anamika Vitthal Kadam	SYBSc and TYBSc degree colleges from Mumbai, Pune, Satara, Kolhapur and Aurangabad			120	27/01/2024
	K B P College, Vashi	Vashi	Thane	cancelled	25/ 01/2024

Name of the Master trainer	Name of School/College/Institute schedule to visit/visited for Campaign	Taluka	District	No. of Students Targeted	Date
				at last moment	
Dr. Rupesh Raut & Dr. Parag Masram	Mahatma Phule College, Panvel	Panvel	Raigad	approx 100	25/ 01/2025
Dr. Asha dhure & Bhavana Solanki	Bharda New High School & Junior College	Mumbai	Fort	90	19/01/2024
Dr. Asha dhure & Bhavana Solanki	Bharda New High School & Junior College	Mumbai	Fort	75	19/01/2024
Dr. Asha dhure & Bhavana Solanki	Kannada Bhavan Education Society High School & Junior College	Mumbai	Fort	90	19/01/2024
Dr. Asha dhure & Bhavana Solanki	Nirmala Niketan College of Home Science	Mumbai	Churchgate	180	20/01/2024
Dr. Asha dhure & Bhavana Solanki	Kannada Bhavan Education Society High School & Junior College	Mumbai	Fort	130	20/01/2024
Shri Sagar Kotkar & Mr. Sandeep Sonawane	Sant Gadge Maharaj College, Khetwadi 12th Lane, Mumbai	Mumbai	Mumbai	58	23/01/2024
Shri Sagar Kotkar & Mr. Sandeep Sonawane	Hazarimal Somani College of Arts and Science, Chowpaty, Mumbai	Mumbai	Mumbai	62	24/01/2024
Dr. Mahendra Telgote & Mr. Vasant Pawar	K.J.Somaiya College of Arts and Commerce, Mumbai	Mumbai	Mumbai	170	24/01/2024
Prof. Manisha Kulkarni & Dr. Shekhar Jadhav	Kirtee M. Doongersee college, Dadar - 400028.	Mumbai	Mumbai	84	24/01/2024
Prof. Manisha Kulkarni & Dr. Shekhar Jadhav	D.B.F. Dayanand College of Arts & Science, Solapur - 413002.	Solapur	Solapur	Scheduled	29/01/2024
Dr. Tanaji Udgirkar, Mr. Priyank Dubey & CA Urvish Parekh	BJPC INSTITUTE JUNIOR COLLEGE, Charni Road	Mumbai	Mumbai	101	25/01/2024
Dr. Savita Patil & Shruti Ujgaonkar	Government secondary ashram school Torangan tq. Trimbakeshwar, Dist Nashik	Trimbakeshwar	Nashik	35	14/01/2024
Dr. Savita Patil & Shruti Ujgaonkar	Sane Guruji Vidya Mandir	Mumbai	Mumbai	45	24/01/2024
Dr. Savita Patil & Shruti Ujgaonkar	The B.J.P.C Institution Jr. College	Mumbai	Mumbai	33	25/01/2024
Dr. Vijay G. Chawale/Salman Dhokadia	Bhausahab Hiray Jr.college	Mumbai	Mumbai	35	25/01/2024
Dr. Tanaji Udgirkar, Mr. Priyank Dubey	DNYAN VIKAS SANSTHA HIGH SCHOOL & JUNIOR COLLEGE, Koperkhairane, Navi Mumbai	Navi Mumbai	Thane	98	27/01/2024

<b>Name of the Master trainer</b>	<b>Name of School/College/Institute schedule to visit/visited for Campaign</b>	<b>Taluka</b>	<b>District</b>	<b>No. of Students Targeted</b>	<b>Date</b>
Deepa Ravi Hirani & Prof Bhavana Patole	RD National College	Mumbai	Mumbai	60	27/1/24













### Prominently in the flex Participants:

The program witnessed active participation from women and senior citizens in Mokhada, District Palghar. Local community leaders, educators, and government officials also attended the sessions to show their support.



The Sensitization Program on Upskilling & Empowering Women and Senior Citizens for Digital Financial Inclusion and Cybersecurity Awareness at Mokhada, District Palghar, successfully achieved its objectives. The empowerment and increased digital literacy among participants contribute positively to the overall socio-economic development of the community.

### **Day 1: February 13, 2024 - Digital Financial Literacy Workshops and Talks by Prof. Rajanish Kamat, Dr. Homi Bhabha State University, Mumbai.**

The program is started with registration of participants followed by interactive sessions on basic digital financial literacy by Prof. Rajanish Kamat. Participants were introduced to the advantages of digital financial tools, followed by hands-on demonstrations of online banking, digital payments, and accessing government schemes digitally. The day concluded with a Q&A session, allowing participants to seek clarification and express their initial thoughts.



### **Day 2: February 14, 2024 -**

Day 2 focused on skill development for senior citizens, providing them with essential computer literacy and smartphone usage training by Dr. Vishal Banewar, Dr. Homi Bhabha State University, Mumbai. Practical exercises were conducted to enhance digital skills, ensuring participants felt confident in using digital devices.

### **Day 3: February 15, 2024 - Cybersecurity Awareness**

The third day reinforcing the digital literacy acquired by participants. Cybersecurity awareness workshops were conducted by Prof. S.B.Kulkarni, Director, The Institute of Sciences, Mumbai., emphasizing the importance of online safety. Attendees learned about common cyber threats, password security, and identifying phishing scams. The day ended with an engaging Q&A session, allowing participants to delve deeper into the cybersecurity aspects.



## Day 4: February 16, 2024 - Interactive Sessions and Closing Ceremony



The final day featured interactive sessions where participants shared their experiences and challenges faced during the program. The closing ceremony acknowledged the achievements of participants and expressed gratitude to all involved stakeholders. On this occasion, Prof. Sanjay Jagtap, Finance & Account officer, Dr. Homi Bhabha State University, Mumbai gives the information regarding digital fraud.

### Overall Impact and Future Steps:

Over the four days, participants experienced a remarkable transformation in their digital skills, financial literacy, and cybersecurity awareness. The program's success is evident in the increased confidence and empowerment reported by attendees. Moving forward, it is crucial to maintain momentum through sustained programs, community partnerships, and continuous feedback mechanisms to ensure the long-term success of the initiative.



## Significant Events and Benefits

### Hutatma Din Observance


- **Date & Time:** January 30, 2024, at 11:00 am
- **Theme:** Homage to freedom martyrs.
- **Participants:** M.Sc. and Ph.D. students, faculty, and staff.



## Guest Lectures and Workshops

### 1. Guest Lecture by Dr. Ashok Gadgil organized by Internal Quality Assurance Cell, HBSU-Mumbai, Dr. Homi Bhabha State University, Mumbai-32

Sr. No.	Activity	Particulars
1.	Theme	Exploring frontiers in science: An interactive session
2.	Date and time	7th February 2024 2:00pm
4.	Venue	Dept. of Chemistry (Room 36) , The Institute of Science, MUMBAI.
5.	Target group	Faculty, Research Students (Ph.D. Students, MSc. Research project students)
6.	Number of beneficiaries	124
7.	Resource person	Resource Person: Dr.Ashok Gadgil
8.	Coordinator	Dr. Vishal Banewar



**डॉ. होमी भाभा स्टेट युनिव्हर्सिटी, मुंबई**  
महात्मा गांधी रोड, मुंबई-३२  
ई-मेल: [dr.gadgil@hbsu.ac.in](mailto:dr.gadgil@hbsu.ac.in)  
दिलीक: ०६/०२/२०२४



प्रति,  
भा. सर्व अधिष्ठाता तथा सर्व पटक महाविद्यालयांचे प्राचार्य/संस्था संचालक, शिक्षक-शिक्षकेतर कर्मचारी, संशोधक व विद्यार्थी डॉ. होमी भाभा स्टेट युनिव्हर्सिटी, मुंबई तसेच संचालक, न्यायसहाय्यक विज्ञान संस्था, मुंबई

**विषय:** डॉ. अशोक गाडगीळ यांच्याशी संवारी चर्चासत्राचे निमंत्रण.

महोदय/महोदया,

उपरोक्त विषयास अनुसरून आपणास कळविण्यात येते की, बुधवार दिनांक ०७.०२.२०२४ रोजी दुपारी ०२.०० वाजता डॉ. अशोक गाडगीळ यांच्याशी संवारी चर्चासत्राचे आयोजन रुम नं. ३६, रसायनशास्त्र विभाग, विज्ञान संस्था, डॉ. होमी भाभा स्टेट युनिव्हर्सिटी, मुंबई येथे करण्यात आले आहे.

तरी, सदर संवारी चर्चासत्रास सर्व अधिष्ठाता तथा सर्व पटक महाविद्यालयांचे प्राचार्य/संस्था संचालक, शिक्षक-शिक्षकेतर कर्मचारी, संशोधक व विद्यार्थी डॉ. होमी भाभा स्टेट युनिव्हर्सिटी, मुंबई तसेच संचालक, न्यायसहाय्यक विज्ञान संस्था, मुंबई यांना निमंत्रण करण्यात येत आहे.

   
संचालक  
अंमलगत गुणवत्ता हमी कक्ष  
(डॉ. विद्यालक्ष्मी बाणेवार)



### 2. Research Scholar Meet February 23 & 24, 2024 organized by Dept. of Chemistry, The Institute of Science, MUMBAI In association with INDIAN CHEMICAL SOCIETY (MUMBAI BRANCH)

Sr. No.	Activity	Particulars
1.	Theme	Research Scholar Meet
2.	Date and time	February 23 & 24, 2024 10.00 am to 5.00 pm
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 beneficiaries	123 Registered 68 (Oral Presentation: 33; Poster Presentation : 33)
7.	Convener	Prof. Dr. R.M.Patil
8.	Organizing Secretary	Prof. Dr. Ratnamala Sonawane



**3. 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**

Sr. No.	Activity	Particulars
1.	Theme	“Transdisciplinary International Conference on Science and Sustainable Future: Envisioning India @2024 ”
2.	Date and time	28th & 29th Feb, 2024 10.00 am to 5.00 pm
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 beneficiaries	204
7.	Convener	Prof. Dr. Anamika V. Kadam, Dr. Rajesh W. Raut
8.	Co-conveners	Dr. Utkarsha Lekhak ; Dr. Shubhangi Patil
9.	Resource persons	Dr. Kailash Rustagi (Ex-Director, CAT, Indore) Prof. Rajanish Kamat (Hon'ble Vice chancellor of HBSU) by 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



4. **One-day workshop on Get Ready for Life Sciences NET-SET Examination was organised by Department of Biochemistry and Microbiology, The institute of Science, Dr. Homi Bhabha State University, Mumbai for guidance to aspiring students on 29th August 2024.** Around 80 students participated in the workshop and got benefitted because of lectures arranged in the workshop. The speakers were

Sr. No.	Activity	Particulars
1.	Theme	One day workshop on Get Ready for Life Sciences NET-SET Examination
2.	Date and time	29 <sup>th</sup> August 2024 Time 10.00 am -5.00 pm
3.	Fees / registration charges	350/- per participant
4.	Venue	Room NO. 36, Department of Chemistry
5.	Target group	M.Sc. And Ph.D. students of Department of Biochemistry, Microbiology , Biotechnology, Botany and Zoology. Students of life sciences from nearby colleges
6.	Number of beneficiaries	80
7.	Resource persons	Dr. Sayyed Iliyas, Professor K. N. Dhumal Professor. Ulhas K. Patil.
8.	Co ordinator	Professor M. V. Padul
9.	Organising secretary	Professor. Rupendra Jadhav



## Conservation and Cost Optimization

- **Energy Conservation:** Transition to LED lighting and energy-efficient appliances.
  - **Paperless Practices:** Emphasis on digital documentation and communication.
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## Donations and Endowments

1. **Dr. (Smt.) Kumud Kale** (Former Professor, Department of Biochemistry)
  - Donation Amount: ₹75,000
  - Date: 13-02-2024
  - Purpose: To establish the Prof. (Dr.) N.G. Magar Gold Medal in memory of Prof. (Dr.) N.G. Magar for students securing first place in Part 2 of the Biochemistry department.
2. **Dr. Jairam Chavan** (Former Professor, Department of Analytical Chemistry)
  - Donation Amount: ₹75,000
  - Date: 13-02-2024
  - Purpose: To establish the Prof. (Dr.) N.G. Magar Gold Medal in memory of Prof. (Dr.) N.G. Magar for students securing first place in Part 2 of the Biochemistry department.
3. **Prof. D. A. Bhiwagade** (Former Professor, Department of Zoology)
  - Donation Amount: ₹1,50,000
  - Date: 26-03-2024
  - Purpose: To establish a Gold Medal as an award for students in the Zoology department.
4. **Sundeep Trust**
  - Donation Amount: ₹1,00,000
  - Date: 27-03-2023
  - Purpose: To establish a Gold Medal at Dr. Homi Bhabha State University, Mumbai, to be awarded to the best outgoing student of the university. The medal may be named after Sundeep Trust Managing Trustee Dr. Avinash K. Dalal (Nallawala).

## Sports Activities and Achievement

Details of the student participation and achievements in sports events at Krida Mahotsav, All India Inter-University, National, and International levels for the academic year 2023-24:

### Krida Mahotsav at Nagpur

- **Badminton:**
  - Kunal Rajendra Kharat (Sydenham College) - 4th Place
  - Mohit Kamlesh Sharma (Sydenham College) - Participation
  - Kunal Devendra Lodha (Sydenham College) - Participation
  - Deepak Yadav (Elphinstone College) - Participation
  - Mansi Dilip Naok (Sydenham College) - Participation
  - Sharvari Pramod Gaikwad (Sydenham College) - Participation
  - Aditi Arvind Yadav (Sydenham College) - Participation
  - Janhavi Satish Kharde (Elphinstone College) - Participation
- **Athletics:**
  - Multiple participants from Elphinstone and Sydenham Colleges - All participated.

### Krida Mahotsav at Lonere

- **Football:**
  - Elphinstone College**
    - Noman Harun Shaikh - Participation
    - Deepak Rupendra - Participation
    - Dinesh Deasis Matty - Participation
  - Sydenham College**
    - Allen Sudhir Dancy - Participation
    - Siddhrah Sachin Avhad - Participation
    - Raj Kishan Chavan - Participation
    - Roshan Manik Rathod - Participation
    - Partv Rajesh Trivedi - Participation
    - Anand Surendra Rathod - Participation
    - Hrishikesh Sachin More - Participation
    - Manav Laxman Kamble - Participation
    - Darryl Melvyn Pallande - Participation
- **Kabaddi:**
  - Sydenham College**
    - Kaif Kadar Sayyed - Participation
    - Uttam Bhimrao Rathod - Participation
    - Kamat Rahul Ganesh - Participation
    - Vichare Yash Amol - Participation
    - Kokitkar Prem Pralhad - Participation
    - Valmiki Sohil Jaypal - Participation
    - Jangali Adesh - Participation
    - Yadav Ramesh - Participation
    - Godambe Siddhesh - Participation
  - Elphinstone College**
    - Kumbhar Abishek - Participation
    - Talwekar Smit Mandesh - Participation
    - Deole Vishal Sanjay - Participation
    - Gupta Vivek Dharmpal - Participation
    - Mahadik Ahishek Prakash - Participation

- **Chess:**

- **Sydenham College**

- Singh Harsh Vijaykumar - Participation
    - Botawane Aavid Kishor - Participation
    - Choudhari Harsh Prathmeshwar - Participation

- **Institute of Science**

- Shaikh Mid Razi Ahmad - Participation
    - Thakur Hitesh Krishna - Participation

**All India Inter-University Participation in Team Game 2023-24**

- **Cricket Championship at Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon:**

- Players from Sydenham College and Elphinstone College represented Dr. Homi Bhabha State University.

**Individual Game Participation in All India Inter-University 2023-24**

- **Boxing:**

- Gourav Wagh (Sydenham College) - 4th place in weight category 45-50.

- **Grappling:**

- Anmol Savant (Sydenham College) - Bronze Medal in 70 kg category.

- **Best Physique:**

- Navnath Kamthe (Elphinstone College) - 10th place in 70-75 kg category.

**All India Inter-University Cricket Team Representation 2023-24**

- Students from Sydenham College, Elphinstone College, and Institute of Science represented Dr. Homi Bhabha State University in the cricket tournament held in Rajasthan.

## INFORMATION OF THE CONSTITUENT COLLEGES/ INSTITUTION

### 1. Principal/Director of the Constituent Colleges/ Institution:

<b>Institute of Science, Mumbai</b>	Prof. Shrinivas Kulkarni
<b>Elphinstone College, Mumbai</b>	Dr. Saumitra Sawant
<b>Sydenham College, Mumbai</b>	Dr. Shrinivas Dhure
<b>Secondary Training College, Mumbai</b>	Prof. Suvidyaa Sarvankar

### 2. Vision/Mission /Goals of the College/Institute

#### **Institute of Science, Mumbai**

##### 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.

##### 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.

##### 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.
4. 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.
5. 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.
6. 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.
7. 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 realworld exposure.
8. 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.

**Elphinstone College, Mumbai**

## Vision

- To kindle the spirit of learning among the youth, irrespective of socio- economic differences, to consistently pursue excellence preserving the tradition of high reputation while meeting the challenges of globalised world.

## Mission

To provide:

- Equal Opportunities of Education
- Holistic Education ensuring all-round development of students.
- Create a human capital, which can be an asset to the nation

## Goals

- To provide quality and affordable education to all the sections of society.
- To facilitate Overall Personality Development of the students through organizing and participating in various inter and intra collegiate festivals, including physical fitness and sports.
- To offer a large number of combinations of subjects for greater flexibility and appropriate choice of subjects.
- To hone the skills of the students to enhance further learning and employability job orientation.
- To provide State-of-the art infrastructure for enrichment of the teaching-learning process.
- To encourage the spirit of research.
- To enhance creativity and an entrepreneurial approach through industrial collaborations.
- To encourage Physical fitness and talent in sports activity.

**Sydenham College, Mumbai**

## Vision

- To continue to excel, provide learning through multifaceted curricular and extra- curricular activities and to kindle light of wisdom and humanity so that our students emerge as complete human beings and take the society towards new horizons of glorious future.

## Mission

- To impart not merely Commerce or Economics education but full education, i.e., educate the whole man.

## Motto

Labour Omnia Vincit  
(Hardwork Conquers All)

**Secondary Training College, Mumbai**

## Vision -

- Our vision is to prepare Excellent teachers through capacity building training. So that all teaching community will identify your product and will brand it as an STCIAN Teacher.

## Mission -

- Our mission is "Excellence through Training" To achieve excellence professional lustrous learning of pre and in service teachers is the mission of the college. The Sanskrit version of our mission is "*Prashikshanat Pravinyam*"

## 3. College Governance: LMC and other committees

**Institute of Science, Mumbai**

1. Steering Committee
2. Secretary to Common Room
3. Planning & Budget
4. Store Committee
5. Pay Pension Fixation for Faculty & Staff
6. Library Committee
7. Faculty and Staff Members Grievance Committee (Statutory)
8. Publicity Committee
9. Philosophical Association & Staff Academy
10. Students Grievances Committee
11. Gymkhana Committee
12. Campus Maintenance & Cleanliness Committee
13. University Examination/Evaluation CAP & Technical Committee
14. Annual Report & Magazine
15. Canteen Committee
16. Fellowship & Scholarship
17. Gas Facility
18. Hostel Committee
19. Computer Maintenance, Internet, Fax, Epabx
20. Ladies Common Room
21. Research Scholars' Meet
22. Staff Meeting & Common Room
23. Garden Committee
24. Income Tax
25. NAAC & Internal Quality Assurance Cell (Statutory)
26. NAAC Subcommittees Curricular Aspects (Criteria-I)
27. Teaching Learning & Evaluation (Criteria-II)
28. Research, Innovation & Extension (Criteria-III)
29. Infrastructure & Learning Resources (Criteria-IV)
30. Student support & Progression (Criteria-V)
31. Governance, Leadership & Management (Criteria-VI)
32. Institutional Values and Best Practices (Criteria-VII)
33. Central Admission Committee
34. National Service Scheme (NSS)
35. District Planning and Development Council (DPDC)
36. UGC and CPE
37. Internal Complaint Committee (ICC) and Woman's Empowerment Grievances Cell (Statutory)
38. Vigilance
39. Anti-ragging Committee (Statutory)
40. RTI Committee (Statutory)
41. Academic Calendar
42. Parent Teacher Association
43. Research Recognition and Ph.D. Admission Committee
44. Career Advancement Scheme (CAS) & API Scrutiny
45. University Extension Work Activities
46. Website Maintenance & Upgradation Committee
47. Consultancy, MoU & Extension
48. Student's Council Committee (Statutory)
49. Technical Committee (Store)
50. Fire Safety Committee
51. Competitive Examination
52. Students Feed-Back Committee
53. Internal Complaint Committee Student representative... Institute (Statutory)
54. Write off committee
55. RUSA Committee (Statutory)
56. Teacher Mentor Scheme
57. Earn and Learn Scheme

58. Student Faculty Exchange Programme and MoU's
59. Equal Opportunity Cell
60. ST-SC Student Grievances Committee
61. OBC Welfare Committee
62. Audit Para Committee
63. PWD Work Monitoring Committee
64. Placement Cell
65. NIRF Committee

### **Elphinstone College, Mumbai**

#### **A. STATUTORY COMMITTEES**

- Internal complaint committee and women special cell (ICC) (UGC notification 02.05.2026)
- Student Council
- Grievance redressal cell (as per MUA 2017, chapter IV, sec 56.2b)
- Admission grievance committee (as per University Act 2016)
- Right to Information (as per central govt Act, 2005)

#### **B. ADMINISTRATIVE COMMITTEES**

- Research Advisory Body
- Purchase committee
- Library committee
- Building maintenance / B&C and campus development
- UGC committee
- Hostel committee
- Discipline committee
- Amalgamated student aids fund, scholarships and student development committee
- Publicity committee
- Prospectus, academic calendar committee
- Income tax committee
- Website development and maintenance
- Write-off committee
- Internal audit and stock verification committee
- DPC committee
- RUSA committee
- E-tendering / GEM committee
- Court cases committee
- HEPSN & life-long learning committee

#### **C. ACADEMIC COMMITTEES**

- IQAC
- Staff club and council of heads
- Academic Audit committee
- Time table committee
- Workload committee
- Result analysis and record keeping committee
- Examination committee
- Student feedback and analysis
- Alumni association
- Environment & Nature Club
- Department clubs/societies/mandals
- Parent-teacher meet
- Revaluation and unfair means committee

#### **D. EXTRA CURRICULAR ACTIVITIES**

- Magazine committee
- Maharashtraotsav
- Gymkhana and sports committee
- NCC
- NSS
- Placement and training cell

- Career counseling cell
- Earn and learn scheme
- Jayanti and punyatithi (as per GR)
- Canteen committee
- Campus cleanliness committee
- Institutional animal ethical committee
- Women development cell

### **SYDENHAM COLLEGE OF COMMERCE & ECONOMICS, MUMBAI**

1. Local Advisory Committee
2. IQAC
3. College Development Committee
4. Discipline & Grievance Redressal Committee
5. Women Development Cell

### **SECONDARY TRAINING COLLEGE, MUMBAI**

1. Local Management Committee
2. Anti-Ragging Committee
3. Discipline Committee
4. Grievance Redressal Committee
5. Purchase Committee
6. Admission Committee

#### 4. Names of programmes offered

UG	PG	Ph.D
Bachelor of Arts	M.Sc. Botany	Botany
Bachelor of Science	M.Sc. Biochemistry	Biochemistry
Bachelor of Commerce	M.Sc. Biotechnology	Biotechnology
B.Sc. Information technology	M.Sc. Chemistry	Chemistry
B.Sc. Biotechnology	M.Sc. Data Science	Environmental Science
BCOM	M.Sc. Environmental Science	Mathematics
BMS	M.Sc. Mathematics	Microbiology
BBi	M.Sc. Microbiology	Physics
BBA	M.Sc. Physics	Zoology
BSM	M.Sc. Zoology	English
B.Ed.	MA (English)	Marathi
	MA (Marathi Journalism)	Geography
	MSc (Industrial Chemistry)	History
	MSc (Industrial Microbiology)	Psychology
	MSc (Information Technology)	Business Policy and Administration
	MCOM (Accountancy)	Business Management
	MCOM (Banking & Finance)	Business Economics
		Business Policy and Administration
		Business Management
		Business Economics
		Business Policy and Administration

#### 5. When the curriculum was last revised

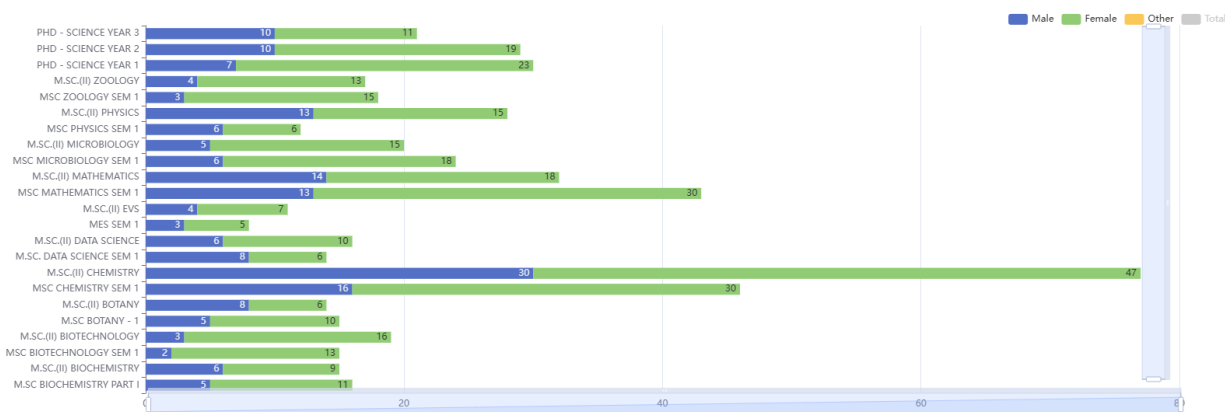
Constituent Colleges/Institute	Complete	Partial
Institute of Science, Mumbai	2021	
Elphinstone College, Mumbai	2019	2019
Sydenham College, Mumbai	2021-22	2019-2020
Secondary Training College, Mumbai	2020	

6. College/ Institute wise Admission Status (AY 2023-24):

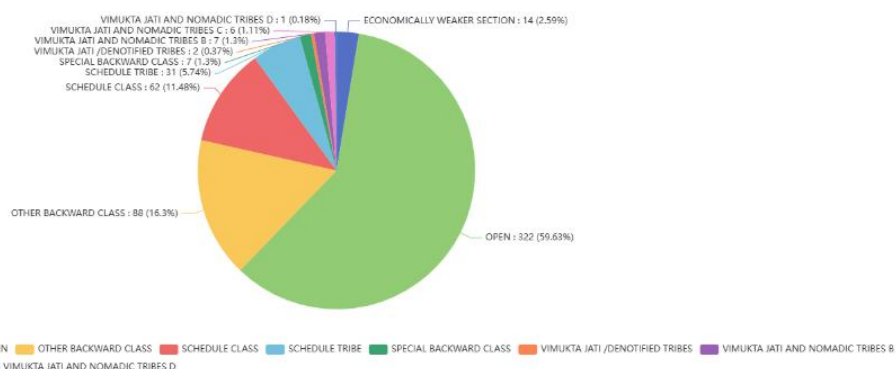
**The Institute of Science, Mumbai**

Caste Category Name	Males	Females	TOTAL
OPEN	99	223	322
OBC	36	52	88
ST	19	12	31
SC	17	45	62
EWS	7	7	14
NT C	4	2	6
NT B	3	4	7
SBC	1	6	7
VJNT	1	1	2
NT D	0	1	1
<b>Total</b>	<b>187</b>	<b>353</b>	<b>540</b>

Coursewise Student Strength



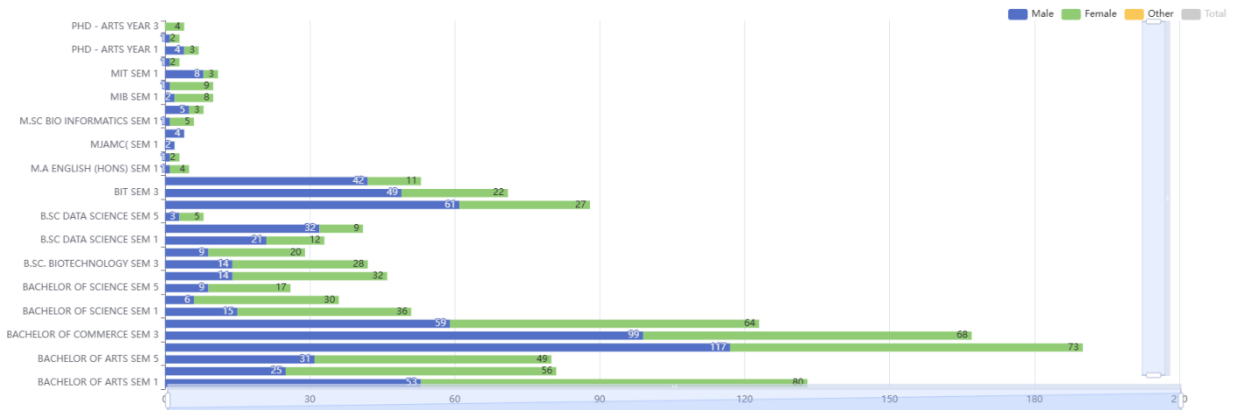
CasteCategorywise Student Strength



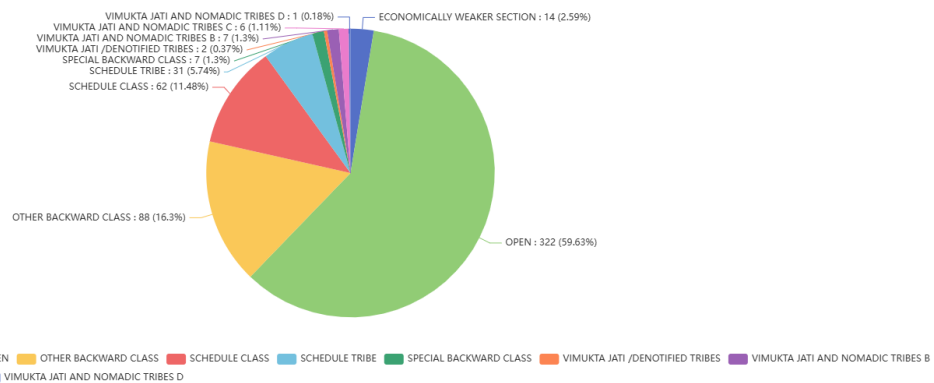
**Elphinstone College, Mumbai**

CasteCategoryName	Males	Females	TOTAL
OPEN	460	448	908
SC	111	119	230
OBC	80	70	150
SBC	13	21	34
NT D	10	5	15
ST	6	5	11
NT C	4	8	12
EWS	3	3	6
NT B	2	3	5
VJNT	1	2	3
<b>Total</b>	<b>690</b>	<b>684</b>	<b>1374</b>

**Coursewise Student Strength**



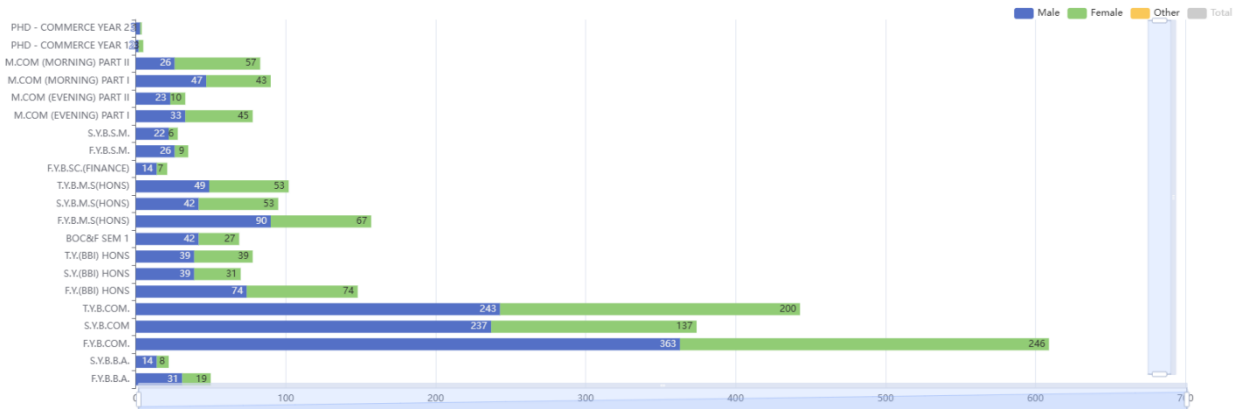
**CasteCategorywise Student Strength**



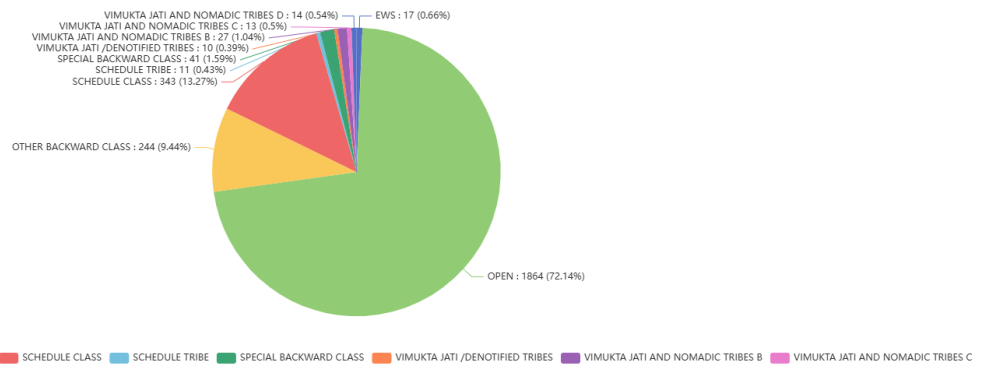
**Sydenham College of Commerce and Economics, Mumbai**

CasteCategoryName	Males	Females	TOTAL
OPEN	1078	796	1874
SC	173	170	343
OBC	132	112	244
SBC	23	18	41
EWS	12	5	17
NT D	11	3	14
NT B	10	17	27
NT C	8	5	13
ST	7	4	11
VJNT	5	5	10
<b>Total</b>	<b>1459</b>	<b>1135</b>	<b>2594</b>

Coursewise Student Strength



CasteCategorywise Student Strength



**Secondary Training College, Mumbai**

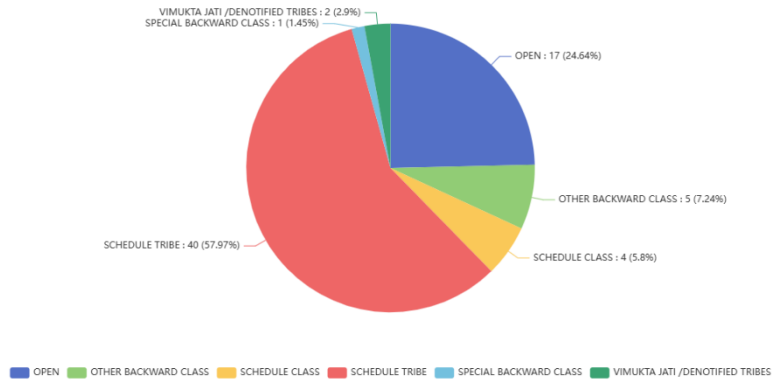
CasteCategoryName	Males	Females	TOTAL
ST	16	24	40
OPEN	4	14	18
VJNT	1	1	2
SC	1	3	4
SBC	0	1	1
OBC	0	5	5
<b>Total</b>	<b>22</b>	<b>48</b>	<b>70</b>

1.

Coursewise Student Strength



CasteCategorywise Student Strength



## 7. Number of teaching posts Sanctioned/Filled

**Institute of Science, Mumbai**

	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

**Elphinstone College, Mumbai**

	Professor			Asso. Professor			Asst. Professor		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Sanctioned	00	00	00	00	00	00	23	14	37
Recruited	00	00	00	00	00	00	17	11	28
Yet to be Recruited	00	00	00	00	00	00	06	03	09
CHB	00	00	00	00	00	00	53	25	78

**Sydenham College, Mumbai**

	Professor			Asso. Professor			Asst. Professor		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Sanctioned									
Recruited	04	01	05	--	--	--	05	05	10
CHB	--	--	--	--	--	--	04	10	14
Temporary (Part Time)							04	01	05
Visiting Faculty	--	--	--	--	--	--	12	18	30

**Secondary Training College, Mumbai**

	Professor			Asso. Professor			Asst. Professor		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Sanctioned	-	-	-	-	-	-	5	3	8
Recruited	-	-	-	-	-	-	1	1	2
Yet to be Recruited	--	--	--	--	--	--	4	2	6
CHB	-	-	-	-	-	-	0	2	2

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

**Institute of Science, Mumbai**

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

Sr. No.	Name of the project	Name of the principal Investigator / Co-Investigator	Year of award	Duration	Funding Agency	Total amount of funds provided
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	Sanctioned
3	Understanding Sorption Mechanism in Li and Na silicate sorbents for Post/precombustion CO <sub>2</sub> Capture applications: Synthesis and Solid State NMR Strategies	Dr. Vishal Banewar	2022	2023-2026	DST-SERB	Sanctioned
4	Upskilling & Empowering Women and Senior Citizens for Digital Financial Inclusion and cybersecurity awareness	Dr. Vishal Banewar	2023	2023-2024	CSR (Corporate Social Responsibility)	Sanctioned
5	Fabrication and development of In-Situ Characterization of Soil element determination system	PI-Dr. Pravin More Co-PI Dr. Rajesh Raut Co-PI Prof. Yuvraj Malghe	2018	3 Years extended till Sept. 2023	RGSTC	86.104 Lakh
6	Rapid and Ultrasensitive Detection of p-tau-181 and p-tau217 antigens using gold nanoparticles antibodies conjugates	Dr. Rajesh W. Raut and Mr Sahebrao B Kashid	2022	2022-2025	RGSTC	48.94 Lakh
7	Microwave-assisted novel synthesis of bioactive thiaza, thidiazia, spiroindoline and different sulphur-nitrogen allied substituted heterocycles.	Dr. Vikas M. Bangade	2023	2023-2026	SERB-SURE	Sanctioned

#### Elphinstone College, Mumbai

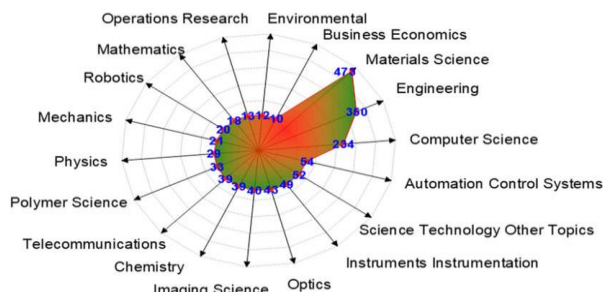
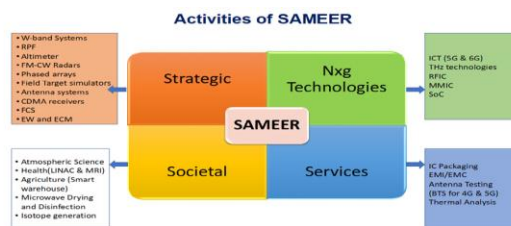
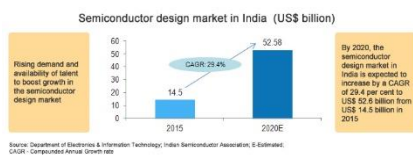
Sr. No.	Name of the project	Name of the principal Investigator / Co-Investigator	Year of award	Duration	Funding Agency	Total amount of funds provided
01	College Readiness and Student Success in Higher	PI: Dr. Vilas Padhye Co-investigator: Shri. Dattatray	2022	2 years	National Institute for Educational Policy and Administration (NIEPA), New	Rs. 3,41,000/-

Sr. No.	Name of the project	Name of the principal Investigator / Co-Investigator	Year of award	Duration	Funding Agency	Total amount of funds provided
	Education	Gangode			Delhi	

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

National collaboration			01				
International collaboration numbers-			02				
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	2024		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
4	Lungha University of Science and Technology, Taiwan		2023				

### Research Ecosystem



- BSE Centre for Research in Financial Markets, Finance, Financial Technology, Data Science
- TIFR, Mumbai
- Centre for Materials for Electronics Technology (CMET), Pune
- Society for Applied Microwave Electronics Engineering & Research, Ministry of Electronics & Information Technology
- RUSA- MSFDA

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

#### Institute of Science, Mumbai

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

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
3	Dr. Vishal Banewar	Understanding Sorption Mechanism in Li and Na silicate sorbents for Post/precombustion CO <sub>2</sub> capture applications: Synthesis and Solid State NMR Strategies	DST-SERB			
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 Ultrasensitive Detection of p-tau-181 and p-tau217 antigens using gold nanoparticles antibodies conjugates	RGSTC	2022	Sanctioned	2022-2025

5. Number of publications during the year

#### Institute of Science, Mumbai

Sr. No.	Particulars	Numbers
1.	Papers presented	29
2.	Number of Papers published	45
3.	Number of Impact Factor – range / average	4.0
4.	Peer-reviewed papers(International)	28
5.	Peer-reviewed papers(National)	02
6.	Books–Edited	06

#### Elphinstone College, Mumbai

Sr. No.	Particulars	Numbers
1.	Papers presented	4
2.	Number of Papers published	12
4.	Number of Citation Index – range / average	5.33
6.	Peer-reviewed papers(International)	8

**Sydenham College, Mumbai**

Sr. No.	Particulars	Numbers
1	Papers presented	15
2	Number of Papers published	35
3	Number of Books with ISBN	04
4	Number of Impact Factor – range / average	10
5	Peer-reviewed papers(International)	18
6	Peer-reviewed papers(National)	06
7	Books–Authored	01
8	Books–Edited	01
9	Chapters in Edited Books/Volumes	04

**Secondary Training College, Mumbai**

Sr. No.	Particulars	Numbers
1	Number of Papers published	Number of Papers published
2	SAL02/SMS-01/SAS-2 (Total -5)	SAL02/SMS-01/SAS-2 (Total -5)

Give list of the publications in APA format:

**Institute of Science, Mumbai**

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	<a href="https://doi.org/10.1016/j.nxst.2024.100037">10.1016/j.nxst.2024.100037</a>
		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	<a href="https://doi.org/10.1016/j.sajb.2024.01.005">https://doi.org/10.1016/j.sajb.2024.01.005</a>
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	<a href="https://doi.org/10.30492/ijcce.2023.1986805.5799">https://doi.org/10.30492/ijcce.2023.1986805.5799</a>
		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	<a href="https://doi.org/10.1080/00103624.2023.2256786">https://doi.org/10.1080/00103624.2023.2256786</a>
		2023	Surface Modification of Nanocellulose: The Path to Advanced Uses of	GSC Advanced Research and Reviews	17	1	2582-4597	<a href="https://doi.org/10.30574/gscarr.2023.17.1.0400">https://doi.org/10.30574/gscarr.2023.17.1.0400</a>

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
			Smart and Sustainable Bio-material					
		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	<a href="https://doi.org/10.22214/ijraset.2023.56335">https://doi.org/10.22214/ijraset.2023.56335</a>
		2023	ultrasonic extraction of bilawanol from semicarpus anacardium fruit for forensic.	European Chemical Bulletin	12	10	13228-13233	<a href="https://www.eurchembul.com/uploads/paper/21d0b89fd3e06a0b642860852b46e488.pdf">https://www.eurchembul.com/uploads/paper/21d0b89fd3e06a0b642860852b46e488.pdf</a>
		2024	Ag-Based Bimetallic Nanoparticles for the Catalytic Reduction of Nitrophenol and Organic Dyes: An Overview	ChemistrySelect	9	18	e202304200 (1 of 29)	<a href="https://doi.org/10.1002/slct.202304200">https://doi.org/10.1002/slct.202304200</a>
9	Sharad L. Jadhav a, Amar L. Jadhav a, 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	<a href="https://doi.org/10.1016/j.jpacs.2023.111422">https://doi.org/10.1016/j.jpacs.2023.111422</a>
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	<a href="https://doi.org/10.1016/j.est.2024.110540">https://doi.org/10.1016/j.est.2024.110540</a>
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	<a href="https://doi.org/10.1039/D3CP03239F">https://doi.org/10.1039/D3CP03239F</a>
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	<a href="https://doi.org/10.1016/j.materchemphys.2023.128494">https://doi.org/10.1016/j.materchemphys.2023.128494</a>

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
<a href="#">13</a>	Khan, A., Gaikwad, M.A., Kim, J.H., A.V. Kadam	2024	An overview and experimental analysis of WO <sub>3</sub> /TiO <sub>2</sub> composite with enhanced electrochromic properties for smart windows application.	Tungsten		1-16		<a href="https://link.springer.com/article/10.1007/s42864-024-00269-x">https://link.springer.com/article/10.1007/s42864-024-00269-x</a>
<a href="#">14</a>	Ayesha Khan, Anamika Kadam	2024	Tailoring TiO <sub>2</sub> Films: The Path to Superior Electrochromic Performance	IntechOpen				DOI: 10.5772/intechopen.1004236
15	Suchitra Sapakal, Ayesha Khan, Anamika V Kadam	2024	Hydrothermally Synthesized $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> on Stainless Steel substrate for oxygen evolution reaction	<i>International Journal of Scientific research Science &amp; Technology</i>	11	11	133-139	doi : <a href="https://doi.org/10.32628/IJ-SRST">https://doi.org/10.32628/IJ-SRST</a>
16	SN Sapakal, A Khan, JM Khobragade, AV Kadam	2023	MoO <sub>2</sub> -based cost effective catalyst for hydrogen evolution via water splitting	Applied Physics A	129	700		<a href="https://doi.org/10.1007/s00339-023-06987-2">https://doi.org/10.1007/s00339-023-06987-2</a>
<a href="#">17</a>	Ayesha Khan, Suchitra Sapakal, Anamika Kadam	2024	A. Comparative analysis of graphene oxide (GO) reduction methods: impact on crystallographic, morphological, and optical properties	Graphene and 2D materials	9		101-109	<a href="https://doi.org/10.1007/s41127-024-00072-y">doi.org/10.1007/s41127-024-00072-y</a>
<a href="#">18</a>	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				<a href="https://doi.org/10.1039/D4NJ01796J">https://doi.org/10.1039/D4NJ01796J</a>
<a href="#">19</a>	Ayesha Khan, Suchitra Sapakal, Anamika Kadam	2024	In-Depth Study of Annealing Effect on Electrodeposited Titanium Dioxide (TiO <sub>2</sub> ) For Smart Windows Application	<i>International Journal of Scientific research Science &amp; Technology</i>	11	11	28-41	doi : <a href="https://doi.org/10.32628/IJ-SRST">https://doi.org/10.32628/IJ-SRST</a>
20	Swapnali B. Dhage, Parvinder 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/BRIAC143.059

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
21	Swapnali B. Dhage, Vithoba L. Patil, Arvind M. Yelpale, <b>Yuvraj S. Malghe</b>	2024	Farming of ZnO-SnO <sub>2</sub> nanocubes for chemiresistive NO <sub>2</sub> gas detection	Chemistry Select				<a href="https://doi.org/10.33263/BRIAC143.059">10.33263/BRIAC143.059</a>
<a href="#">22</a>	Bhushan B. Popatkar, Vikas V. Borge, Ramchandra G. Thorat, Arun K. Kadu, <b>Vikas M. Bangade</b> , 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	<a href="https://ndlsearch.ndl.go.jp/books/R00000004-I032985699">https://ndlsearch.ndl.go.jp/books/R00000004-I032985699</a>
<a href="#">23</a>	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	<a href="https://doi.org/10.1016/j.chemosphere.2024.141244">https://doi.org/10.1016/j.chemosphere.2024.141244</a>
24	Chavan Jotiram K. and <b>Patil Raju M.*</b>	2023	Microwave assisted Synthesis and Characterization of Novel Acylhydrazoneoximes	Research Journal of Chemistry and Environment	27	12	31-34	<a href="https://doi.org/10.25303/2712rjce031034">https://doi.org/10.25303/2712rjce031034</a>
25	Lad M.N. <b>Patil.R.M.</b> 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	<a href="https://doi.org/10.25303/285rjce041051">https://doi.org/10.25303/285rjce041051</a>
26	Chavan Jotiram K. and <b>Patil Raju M*</b>	2024	Synthesis, Characterization and Antibacterial Activities of Copper Metal Complexes of Some Novel Acylhydrazoneoxime Ligands	Research Journal of Chemistry and Environment	28	6	22-27	<a href="https://doi.org/10.25303/286rjce22027">https://doi.org/10.25303/286rjce22027</a>
27	Rahilah Shaikh, Rekha Rajput, Rohidas B Kale	2024	Bismuth sulfide/carbon black: as a pt free and efficient	<a href="#">Physica Scripta</a>	99	2	25936	DOI: <a href="https://iopscience.iop.org/article/10">https://iopscience.iop.org/article/10</a>

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			counter electrode in DSSC					.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 Bi <sub>2</sub> S <sub>3</sub> counter electrode	Next Materials	3	1	100051	<a href="https://doi.org/10.1016/j.nxmate.2023.100051">https://doi.org/10.1016/j.nxmate.2023.100051</a>
29	Rekha Rajput, Rupali Mane, Shweta Jamble, Neetu Jha, Rohidas B Kale	2023	N-doped carbon/TiO <sub>2</sub> composites with enhanced photocatalytic performance for the removal of organic pollutants	Journal of Physics and Chemistry of Solids	184		111677	10.1016/j.jpccs.2023.111677
30	Rekha B Rajput, Abhaysinh Salunkhe, Rohidas B Kale	2023	Solar light induced photocatalytic degradation of textile dyes using solvothermally synthesized SnO <sub>2</sub> 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 mesoporous Bi <sub>2</sub> S <sub>3</sub> /poly(vinylpyrrolidone) composites on DSSC performance	Current Applied Physics	55		22-33	<a href="https://doi.org/10.1016/j.ccap.2023.08.009">https://doi.org/10.1016/j.ccap.2023.08.009</a>
32	Rekha B Rajput, Rohidas B Kale	2023	Photocatalytic activity of solvothermally synthesized rutile TiO <sub>2</sub> nanorods for the removal of water contaminants	Material Science and Engineering: B	294		116556	<a href="https://doi.org/10.1016/j.mseb.2023.116556">https://doi.org/10.1016/j.mseb.2023.116556</a>
33	Rekha B Rajput, Rohidas B Kale	2023	The facile synthesis of 3D hierarchical flower-like TiO <sub>2</sub> microspheres with enhanced photocatalytic activity	Journal of Physics and Chemistry of Solids	177		111286	<a href="https://doi.org/10.1016/j.jpccs.2023.111286">https://doi.org/10.1016/j.jpccs.2023.111286</a>
34	Huria, N. and Saraf, A.	2024	Pharmacognostic and Phytochemical Studies for the Establishment of Quality Parameters of Leaf of Morus alba L., and Morusindica L.	International Journal of Scientific Research in Science and Technology,	11	1	85-97	<a href="https://doi.org/10.32628/IJSRST24111112">https://doi.org/10.32628/IJSRST24111112</a>
35	Huria, N. and Saraf, A.	2024	Elemental Characterization of Leaf Extracts of Three Different Species of	International Journal of Scientific Research in	11	2	436-445	<a href="https://doi.org/10.32628/IJSRST24111277">https://doi.org/10.32628/IJSRST24111277</a>

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			Mulberry: Morus. alba L., Morus. nigra L. and Morus. indica L., Using Inductively Coupled Plasma -Atomic Emission Spectroscopy (ICP-AES).	Science and Technology,				
36	Saraf, A. and Huria, N.	2023	Establishment of Quality Parameters in the Leaf Extract of Morus. nigra L.	Advances in Bioresearch Adv. Biores	14	5	338-348	<a href="https://doi.org/10.15515/abr.0976-4585.14.5.338348">https://doi.org/10.15515/abr.0976-4585.14.5.338348</a>
37	Nikki Huria, Amit Saraf, Aparna Saraf	2024	Estimation of Rutin From Morus Species Using Validated HPTLC Method,	Int. J. of Pharm. Sci.	2	3	565-577	<a href="https://doi.org/10.5281/zenodo.10954737">https://doi.org/10.5281/zenodo.10954737</a>
38	Huria, N., Saraf A and Saraf A	2024	Gas Chromatography-Mass Spectroscopy Profile and Anti-Oxidant Activity of Morus Alba L. Leaf Extracts. , 14(2).	IJBPAS	14	2		<a href="https://doi.org/10.31032/IJBPAS/2025/14.2.8701">https://doi.org/10.31032/IJBPAS/2025/14.2.8701</a>
39	Gaikwad, L., & Saraf, A.	2024	Spectral fingerprint analysis of Mesua ferrea Linn. and its adulterants using FTIR and GC-MS techniques.	International Journal of Herbal Medicine	1	2	16-23	<a href="https://doi.org/10.22271/ijora.2024.v12.i2a.926">https://doi.org/10.22271/ijora.2024.v12.i2a.926</a>
40	Lobo, D., & Saraf, A	2023	HPTLC Method Development and Validation for Quantification of Biomarker $\beta$ -Sitosterol and Betulinic Acid in the Leaves, Stem and Roots of Spermadictyon suaveolens Roxb.	Advances in Bioresearch Adv. Biores	14	5	319-326	<a href="https://doi.org/10.15515/abr.0976-4585.14.5.319326">https://doi.org/10.15515/abr.0976-4585.14.5.319326</a>
41	Divya Lobo P, Aparna Saraf	2024	Pharmacognostic and Phytochemical Studies for the Establishment of Quality Parameters of Leaves, Stem and Root of Spermadictyon suaveolens Roxb"	International Journal of Scientific Research in Science and Technology(IJ SRST)	11	11	59-71	<a href="https://doi.org/10.32628/IJSRST">https://doi.org/10.32628/IJSRST</a>
42	Divya Lobo P., Aparna Saraf	2023	Elemental Analysis of Different Plant Parts of Spermadictyon suaveolens Roxb. ,	Int. J. of Pharm. Sci.	2	4	310-320	<a href="https://doi.org/10.5281/zenodo.10931738">https://doi.org/10.5281/zenodo.10931738</a>

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
			2024, Vol 2, Issue 4, 310-320.					
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	<a href="https://doi.org/10.22271/phyto.2024.v13.i3d.14970">https://doi.org/10.22271/phyto.2024.v13.i3d.14970</a>
44	Dr. M. R. Sonawane	2023	Synthesis of NiCo2O4/BC composite material for an application of supercapacitor					<a href="https://doi.org/10.13140/RG.2.2.20309.81120">DOI:10.13140/RG.2.2.20309.81120</a>
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	<a href="https://doi.org/10.1007/978-3-031-21572-8_1">DOI:10.1007/978-3-031-21572-8_1</a>

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1. Kambale Amol, Sarvankar Suvidyaa Mahesh (2023) A Study of Effectiveness of Constructive approach for enhancing Achievement in Chemistry among 9<sup>th</sup> std students, Vidyavarta interdisciplinary multilingual referred journal Oct-Dec 2023
2. डॉ. लोंढे, सुनिता आणि राऊळ, रुता.( २०२३). मुंबई विद्यापीठाशी संलग्नित शिक्षणशास्त्र महाविद्यालयातील छात्रसेवाकालातील सराव पाठ घेताना छात्रशिक्षकांना येणाऱ्या अडचणींचा अभ्यास, विद्यावार्ता बहुभाषिक संशोधन पत्रिका. बीड: विद्यावार्ता प्रकाशन ( ISSN : 2319 9318)
3. डॉ. लोंढे, सुनिता आणि राऊळ, रुता.( २०२३). मुंबई विद्यापीठाच्या सुधारित बी.एड. अभ्यासक्रमानुसार छात्रसेवाकालात राबविण्यात येणाऱ्या प्रात्यक्षिक कार्याद्वारे छात्रशिक्षकांमध्ये होणाऱ्या व्यावसायिक कौशल्यांचा विकास एक चिकित्सक अभ्यास, एज्युकेशन अँड डेव्हलपमेंट. नवी दिल्ली: ए. पी. एच पब्लिकेशन ( ISSN : 2320-3684)
4. सोनवणे एस.ए .(फेब्रुवारी 2024) - नवीन राष्ट्रीय शिक्षण धोरण"2020 संधी व आव्हाने ग्लोबल ऑनलाईन " इलेक्ट्रॉनिक इंटरनॅशनल इंटरडिसिप्लिनरी रिसर्च जर्नल(GOEIIRJ) Volume XIII Special Issue -१
5. Sonawane S.A., Rathod K. C. (February 2024) "Impact of NEP- 2020 on Higher Education" Global Online Electronic International Interdisciplinary Research Journal, (GOEIRJ) Volume -XIII Special issue -1.
6. H-index of individual faculty (add separate sheet, if necessary)

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Sr. No.	Name of the Faculty	H-index
1	Prof.S.B.Kulkarni	23
2	Prof. Ajay Chaudhari	32
3	Prof. Dr. A.V. Kadam	16
4	Dr. Vishal Banewar	4
5	Dr. Rajesh W. Raut	15

Sr. No.	Name of the Faculty	H-index
6	Prof Y S Malghe	16
7	Dr. B. M. Patil	2
8	Dr. U. M Lekhak	19
9	Prof Rupendra Jadhav	24
10	Dr. M. R. Sonawane	03
11	Prof. M. V. Padul	13
12	Dr. S. B. Jadhav	14
13	Prof. Rohidas B. Kale	23
14	Prof. Umesh Kakde	9
15	K. G. Sonawane	9
16	Dr Ravindra Kalesh	5
17	Dr.Shubhangi Patil	3
18	Dr. Vikas M. Bangade	10
19	Dr. Vishal Banewar	4
20	Prof. R.M. Patil	17
21	Prof. Ulhas K. Patil	16
22	Prof. Aparna Saraf	9
23	Prof Selby Jose	5
24	Prof Gayatri Barabde	2

#### Elphinstone College, Mumbai

Sr. No.	Name of the Faculty	H-index
1	Dr. Vilas Padhye	2
2	Dr. Nikita Thakre	3
3	Dr. Rupesh Raut	8
4	Dr. Parag Masram	2
5	Dr. Samadhan Waghmode	7
6	Dr. Rahul Zanan	13

#### 7. Details of patents and income generated

##### Institute of Science, Mumbai

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

Sr. No.	Name of the Patenter	Patent No.	Title of the Patent	Year of Award of Patent	Income generated
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 COMPOSITE USING MAMMALIAN HAIR KERATIN & ITS APPLICATION IN DEGRADATION OF ORGANIC DYES	24/11/2023 Published	
7	Prof. Anamika Kadam	202321055842	A method for production of amber colored glass using TiO <sub>2</sub>	21-08-2023 Published waiting for granted	0

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

**Institute of Science, Mumbai**

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 Programe 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

Sr. No.	Name of Research fellow	Year of enrolment	Duration of fellowship		Type of the fellowship
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	Inspire Fellowship	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

#### Elphinstone College, Mumbai

Sr. No.	Name	Year of Award	Designation	Name of the Award
1.	Dr. Nikita Thakre	2023	Assistant Professor	Doctoral

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

#### Institute of Science, Mumbai

Sr. No.	Examinations	Number
1.	NET	01
2.	SLET	02
3.	GATE	02
4.	State Government examinations	01

#### Elphinstone College, Mumbai

Sr. No.	Examinations	Number
1.	NET	01
2.	CIVIL Services	01
3.	Any other (JAM)	01

#### Sydenham College, Mumbai

Sr. No.	Examinations	Number
1.	NET	02
2.	SLET	01
3.	GMAT	05

Sr. No.	Examinations	Number
4.	CAT	08
5.	TOEFL/IELTS	124
6.	Any other – chartered Accountancy	03

### Secondary Training College, Mumbai

Sr. No.	Examinations	Number
1.	NET	1
2.	SLET	1
3.	CTET Exam	8

### 10. List of doctoral, post-doctoral students and research associates

#### Institute of Science, Mumbai

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	Prof. S.B.Kulkarni	Mumbai University
6	Nidhi Tiwar	Prof. 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. Parvinder 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

<b>Sr. No.</b>	<b>Name of the student</b>	<b>Name of guide</b>	<b>Name of institutions/universities</b>
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

<b>Sr. No.</b>	<b>Name of the student</b>	<b>Name of guide</b>	<b>Name of institutions/universities</b>
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

#### **Elphinstone College, Mumbai**

<b>Sr. No.</b>	<b>Name of the student</b>	<b>Name of guide</b>	<b>Name of institutions/universities</b>
1.	Bhagyashree Kulkarni	Prof. Vilas Padhye	HBSU
2.	Sanajana Mehta	Prof. Vilas Padhye	HBSU
3.	Shraddha Nigdikar	Prof. Vilas Padhye	HBSU
4.	Priyanka Singh	Dr. Rupesh Raut	HBSU
5.	Faith D'Silva	Dr. Rupesh Raut	HBSU
6.	Pranav Bhosale	Dr. Parag Masram	HBSU
7.	Sabhna Nair	Dr. Parag Masram	HBSU
8.	Manisha Lawre	Prof. Bhavana Patole	HBSU
9.	Kevin Salve	Prof. Bhavan Patole	HBSU

#### **Sydenham College, Mumbai**

<b>Sr. No.</b>	<b>Name of the student</b>	<b>Name of guide</b>	<b>Name of institutions/universities</b>
1.	Bhar Anamika Saumitra	Dr. Radhika Iyer	HBSU
2.	Dubey Priyank Kumar Brahmadev	Dr. Vijay Chawale	HBSU

3.	Solanki Bhavana Bharat	Dr. Radhika Iyer	HBSU
4.	Ujgaonkar Shruti Prakash	Dr. Radhika Iyer	HBSU
5.	Waghchaure Atish Prakash	Dr. Vijay Chawale	HBSU

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

**Institute of Science, Mumbai**

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

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

**The Institute of Science, Mumbai**

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		Value Added Course	Molecular Docking and Study of Drug Likness Charecteristics	2023-24

Sr. No	Name of the Course	Course Code	Name of the Programme	Activities with direct bearing on Employability/Entrepreneurship/Skill development	Year of Introduction
	Organic Chemistry 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

#### Elphinstone College, Mumbai

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.	Psychological Testing and Statistics	BAPSDC501T	BA Psychology	Psychometric measurement, application of tests, scoring, interpretation. Useful in career guidance and counseling setups	2019

#### Sydenham College, Mumbai

Sr. No	Name of the Course	Name of the Programme	Activities with direct bearing on Employability/Entrepreneurship/Skill development	Year of Introduction
1	BCom	BCom	Seminars on GST, IT Return Filing, CA – Interns	1913
2	M.Com	M.Com	Research Projects, On Job Training, Field visits, Campus training on personality grooming	1925
3	Bachelor of Management Studies	BMS	Finance Conclave, Yountre, Workshop on personality grooming, resume writing, Start Ups, Emotional Quotient	1999
4	B.Com Banking And Insurance	BBI	Workshop on BFSI Sector, Field Visit, Seminars on Fintech	2003
5	Banking and Financial Analytics	BBA (Banking and financial Analytics)	Live Trading, Mock Trading, Live Projects, Workshops	2022
6	Sports Management	Bachelor in Sports	Practical Skills, Field work,	2022

		Management	Projects	
7	BSc Finance	BSc. (finance)	Digital currency, econometrics, Risk Management	2023

### Secondary Training College, Mumbai

Sr. No	Name of the Course	Name of the Programme	Activities with direct bearing on Employability/Entrepreneurship /Skill development	Year of Introduction
1	B.Ed.	SCHOOL INTERSHIP	Teacher Training program Micro teaching workshop Internship program	2015

### 13. Value Added Courses

#### Institute of Science, Mumbai

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	

#### Elphinstone College, Mumbai

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.	Campus to Corporate	01	24

#### Sydenham College, Mumbai

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	NCCMP	01	18
2	Foreign Trade Program	01	94
3	Market Aligned Skill Training	01	40
4	Tally	01	87

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

#### Institute of Science, Mumbai

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/P Discipline Specific Elective (4+2 Credits)	IV
7.	Ecology, Environmental Botany and Biotechnology IV (Technologies for Pollution Control) MSBODE406T/P Discipline Specific Elective (4+2 Credits)	IV

#### **Elphinstone College, Mumbai**

Sr. No	Name of the Paper	Semester
1	Social Psychology	III
2	Stereotyping, Prejudice, and Discrimination; Social Psychology	IV
3	Groups and Individuals - The Consequences of Belonging; Developmental Psychology	IV

#### **Sydenham College, Mumbai**

Sr. No	Name of the Paper	Semester
1	Environmental Studies	I
2	Constitution of India	II
3	Business Ethics and CSR	MCOM - I
4	Indian Ethos in Management	BMS – Sem V
5	Contemporary Issues in India	BCOM. Sem 1-4
6	Co-Curricular Projects – Nature Club, NSS, Yoga, Ayurveda, Sports	First Year (All Courses)

#### **Secondary Training College, Mumbai**

Sr. No	Name of the Paper	Semester
1	Gender School Society	I
2	Environment Education	IV
3	Pedagogy Of School Subject	II, III

15. Teacher: Student Ratio :

Constituent Colleges/Institute	Ratio
Institute of Science, Mumbai	1:12
Elphinstone College, Mumbai	1:30
Sydenham College, Mumbai	1:75
Secondary Training College, Mumbai	1:12

16. Details of student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

#### **Institute of Science, Mumbai**

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 postlaboratory 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.

### **Elphinstone College, Mumbai**

Student-centric methods such as experiential learning, participative learning, and problem-solving methodologies are applied to enhance learning experiences and promote student engagement. Some specific strategies are:

#### **Experiential Learning**

##### **1. Laboratory Work and Research Projects:**

- **Hands-On Experiments:** Regular lab sessions where students conduct experiments and learn techniques such as DNA extraction, PCR, gel electrophoresis, and cell culture.
- **Research Projects:** Students participate in ongoing research projects under faculty supervision, allowing them to apply theoretical knowledge in practical scenarios.
- **Internships:** Partnerships with biotechnology companies and research institutes to provide students with internship opportunities where they can gain industry experience.

##### **2. Field Trips and Industrial Visits:**

- Organize visits to biotechnology firms, research labs, and agricultural biotech farms to observe real-world applications of biotechnological principles.

##### **3. Workshops and Seminars:**

- Conduct workshops on advanced topics such as CRISPR, synthetic biology, and bioinformatics tools.
- Invite industry experts and researchers to give seminars and share insights into current trends and future directions in biotechnology.

##### **4. Simulated Environments:**

- Use simulation software to mimic biological processes and experimental procedures, providing a risk-free environment for students to learn complex concepts.

#### **Participative Learning**

##### **1. Group Projects and Collaborative Learning:**

- **Team-Based Projects:** Encourage students to work in groups on research projects or case studies, fostering collaboration and knowledge sharing.
- **Peer Review:** Implement a peer review system where students evaluate each other's work, providing constructive feedback and promoting critical thinking.

##### **2. Student-Led Seminars and Discussions:**

- Allow students to lead seminars on topics of interest, preparing and presenting content to their peers, enhancing their understanding and presentation skills.
- **Discussion Forums:** Create platforms (online or offline) where students can discuss recent advancements in biotechnology, share resources, and debate scientific concepts.

**3. Interactive Classrooms:**

- Use interactive tools such as clickers or educational software to conduct real-time quizzes and polls during lectures, keeping students engaged and actively involved.

**Problem-Solving Methodologies****1. Case-Based Learning:**

- Present students with real-world case studies related to biotechnological challenges, such as developing a new drug, solving an environmental issue with bioremediation, or improving crop yield using genetic engineering.
- Facilitate group discussions and guide students through the process of analyzing the problem, proposing solutions, and evaluating the outcomes.

**2. Project-Based Learning:**

- Assign projects where students must identify a problem, conduct research, design experiments, and propose viable solutions. This could include developing a novel biotech product or solving a local environmental problem using biotechnological approaches.

**3. Problem-Solving Workshops:**

- Organize workshops focused on specific problems in biotechnology, where students work in teams to devise and present solutions. These workshops can be facilitated by faculty and industry experts.

**4. Hackathons and Competitions:**

- Host biotechnology hackathons where students compete to solve specific challenges within a limited timeframe. These events can stimulate creativity, teamwork, and application of knowledge in high-pressure situations.

**Implementation Strategy****1. Curriculum Integration:**

- Integrate these methods into the curriculum, ensuring that each course includes elements of experiential, participative, and problem-solving learning.

**2. Faculty Training:**

- Provide faculty with training on these teaching methodologies to ensure effective implementation and to help them create engaging and interactive learning experiences.

**3. Feedback Mechanism:**

- Establish a feedback mechanism where students can provide input on the effectiveness of these methods, allowing for continuous improvement and adaptation.

**4. Resource Allocation:**

- Ensure adequate resources (funding, lab equipment, software, etc.) are available to support these student-centric learning methods.

These strategies encourage active student participation, critical thinking, collaboration, and the practical application of knowledge. By incorporating these student-centric methods into college curricula, educators can create dynamic learning environments that empower students to become active learners and develop essential skills for their future academic and professional endeavors

**Sydenham College, Mumbai**

- Experiential Learning – Through 20 student managed societies
- Peer Learning
- Participative Learning – Group discussion, Projects, Presentation etc
- Gamification – quiz, role play, games etc
- Field Visit, Live Projects, Mock Training, Co-Curricular Activities
- Inter University Collaboration, Offering Open electives Subjects

**Secondary Training College, Mumbai**

- During school internships- experiential learning, participate learning and problems solving all methods used.
- Using this methods students prepare their assignment work
- In pedagogy courses students visited Nehru Science centre, Nehru Planetarium, Nehru Centre for experiential learning.
- Visited Chatrapati Shivaji Masharaj Musium for historical and cultural heritage.
- Visited Maharashtra Nature park for experiential learning.



## 17. Use of ICT enabled tools including online resources for effective teaching and learning process

### **Institute of Science, Mumbai**

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.

### **Elphinstone College, Mumbai**

Various online tools and strategies are employed by the college for effective teaching and learning process. Some of them are mentioned below:

#### **1. Learning Management Systems (LMS)**

- **Platform Selection:** Choose an LMS such as Moodle, Blackboard, or Google Classroom to manage course content, assignments, and assessments.
- **Course Materials:** Upload lecture notes, presentations, reading materials, and lab manuals to the LMS.
- **Interactive Features:** Utilize forums, chat rooms, and discussion boards within the LMS to foster student interaction and engagement.

#### **2. Online Collaboration Tools**

- **Document Sharing and Collaboration:** Use tools like Google Docs, Sheets, and Slides for collaborative projects and assignments, allowing multiple students to work together in real-time.
- **Project Management:** Implement project management tools such as Trello or Asana for organizing group projects and tracking progress.

#### **3. Virtual Classrooms and Video Conferencing**

- **Synchronous Learning:** Use platforms like Zoom, Microsoft Teams, or Google Meet for live lectures, virtual labs, and interactive Q&A sessions.
- **Asynchronous Learning:** Record lectures and lab demonstrations for students to access at their convenience, catering to diverse learning paces and schedules.

#### **4. Multimedia and Interactive Content**

- **Educational Videos:** Integrate video content from platforms like YouTube, Khan Academy, or Coursera into the curriculum to supplement lectures with visual and interactive learning materials.
- **Simulations and Virtual Labs:** Utilize virtual lab platforms such as Labster or PhET simulations to provide students with hands-on experience in a virtual environment.

**5. E-Books and Online Libraries**

- **Digital Libraries:** Provide access to e-books, research journals, and online databases such as PubMed, ScienceDirect, and JSTOR through the college's library portal.
- **Resource Sharing:** Create a repository of open educational resources (OER) and share links to relevant articles, papers, and books.

**6. Assessment and Evaluation Tools**

- **Online Quizzes and Exams:** Use tools like Google Forms, Quizizz, or Kahoot! to create and administer quizzes and exams. These tools can provide instant feedback and analytics on student performance.
- **Assignment Submission:** Utilize the LMS for assignment submissions, enabling plagiarism checks and easy grading.

**7. Interactive Whiteboards and Smart Classrooms**

- **Smart Boards:** Install interactive whiteboards in classrooms to enhance lecture delivery with digital annotations, diagrams, and multimedia integration.
- **Screen Sharing:** Use screen-sharing capabilities during virtual classes to demonstrate software tools, data analysis techniques, and other computer-based activities.

**8. Data Analysis and Bioinformatics Tools**

- **Software Training:** Provide access to and training on bioinformatics tools such as BLAST, Clustal Omega, and R for data analysis and interpretation.
- **Online Platforms:** Use online platforms like Galaxy or CyVerse for collaborative data analysis projects.

**9. Personalized Learning Tools**

- **Adaptive Learning Platforms:** Implement adaptive learning platforms like Knewton or Smart Sparrow that adjust content and quizzes based on individual student performance and learning styles.
- **Learning Analytics:** Use learning analytics tools to track student progress, identify at-risk students, and tailor interventions accordingly.

**10. Professional Development and Online Courses**

- **MOOCs:** Encourage students to enroll in massive open online courses (MOOCs) on platforms like Coursera, edX, or Udacity to supplement their learning and gain certifications in specialized areas.
- **Webinars and Online Workshops:** Host and participate in webinars and online workshops to stay updated with the latest advancements in biotechnology.

**Implementation Strategy****1. Faculty Training:**

- Conduct workshops and training sessions for faculty to familiarize them with the selected ICT tools and online resources, ensuring they are proficient in their use.

**2. Student Orientation:**

- Organize orientation sessions for students to introduce them to the various ICT tools and platforms that will be used in their courses.

**3. Technical Support:**

- Provide continuous technical support to both faculty and students to troubleshoot issues and ensure smooth operation of ICT tools.

**4. Feedback and Improvement:**

- Establish a feedback system where students and faculty can provide input on the effectiveness of the ICT tools and suggest improvements.

**5. Resource Allocation:**

- Ensure the availability of necessary resources such as high-speed internet, software licenses, and digital devices to support the integration of ICT in teaching and learning.

By leveraging ICT-enabled tools and online resources, the college creates a dynamic and flexible learning environment that caters to diverse student needs, enhances engagement, facilitates collaboration, and provides access to a wealth of knowledge and learning opportunities. These tools support effective teaching methods, encourage active participation, and promote lifelong learning in the digital age

**Sydenham College, Mumbai**

- smart Classroom
- Flipped classroom
- E-resources like journal, books (available in library)
- Interactive Teaching boards, Laptops, Scanners, Printers, Software

- Blended Learning – Google classroom, Zoom, Microsoft Teams
- Laboratories
- You Tube Links, PPT Presentations etc

#### **Secondary Training College, Mumbai**

- Use of ICT is done in all aspects such as teaching- learning, examination, presentations
- during internship for effective teaching- learning process our student-teachers use ICT for teaching.
- LCD .projector were used in teaching.
- ICT is used for internal assessment

### 18. Details for initiatives regarding Slow and Advanced Learners

#### **Institute of Science, Mumbai**

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.

#### **Elphinstone College, Mumbai**

##### **Initiatives for Slow Learners**

- 1. Personalized Learning Plans:**
  - Develop individualized learning plans that focus on the specific needs of slow learners, identifying areas where they require additional support and setting achievable goals.
- 2. Remedial Classes and Tutoring:**
  - Offer remedial classes focusing on fundamental concepts and difficult subjects, taught by experienced faculty or senior students.
  - Establish a peer tutoring system where high-performing students assist slow learners with their coursework and assignments.
- 3. Interactive and Engaging Teaching Methods:**
  - Use visual aids, interactive simulations, and practical demonstrations to simplify complex concepts and make learning more engaging.
  - Implement flipped classroom techniques where students review lecture materials at home and engage in interactive problem-solving activities in class.
- 4. Regular Feedback and Assessments:**
  - Conduct frequent formative assessments to monitor progress and provide constructive feedback.
  - Use quizzes, short tests, and assignments to identify learning gaps and address them promptly.
- 5. Mentorship Programs:**
  - Pair slow learners with faculty or senior student mentors who can provide guidance,

encouragement, and academic support.

6. **Time Management and Study Skills Workshops:**
  - Organize workshops that teach effective time management, note-taking, and study techniques, helping slow learners develop better academic habits.
7. **Counseling and Emotional Support:**
  - Provide access to counseling services to address any emotional or psychological challenges that may be hindering academic performance.
  - Create a supportive and inclusive classroom environment that encourages slow learners to participate and ask questions without fear of judgment.
8. **Use of Technology:**
  - Leverage educational technology such as adaptive learning platforms that personalize content delivery based on the learner's pace and understanding.
  - Provide access to recorded lectures, online resources, and interactive tutorials for additional practice and revision.

#### **Initiatives for Advanced Learners**

1. **Advanced Coursework and Electives:**
  - Offer advanced courses and elective subjects that delve deeper into specialized areas of biotechnology, catering to the interests and aptitudes of advanced learners.
2. **Research Opportunities:**
  - Encourage participation in faculty-led research projects and provide opportunities to conduct independent research under faculty supervision.
  - Facilitate access to research labs, equipment, and funding for advanced learners interested in pursuing innovative projects.
3. **Internships and Industry Partnerships:**
  - Arrange internships and collaborative projects with biotechnology companies and research institutes, giving advanced learners practical exposure and industry experience.
4. **Seminars and Conferences:**
  - Encourage advanced learners to attend and present at national and international seminars, conferences, and workshops to broaden their knowledge and network with professionals.
  - Organize guest lectures and seminars by renowned scientists and industry experts on cutting-edge topics in biotechnology.
5. **Special Interest Groups and Clubs:**
  - Form special interest groups or clubs focused on advanced topics such as synthetic biology, bioinformatics, and genetic engineering, providing a platform for advanced learners to explore and discuss their interests.
6. **Online Courses and Certifications:**
  - Facilitate enrollment in online courses and certification programs on platforms like Coursera, edX, and Udacity, allowing advanced learners to gain expertise in specific areas.
7. **Leadership and Teaching Roles:**
  - Provide opportunities for advanced learners to take on leadership roles in student organizations, research projects, and academic events.
  - Encourage advanced learners to assist in teaching lower-level courses, leading study groups, or tutoring peers, enhancing their understanding and communication skills.
8. **Competitive Exams and Scholarships:**
  - Prepare and support advanced learners for competitive exams such as GRE, GATE, and CSIR-NET, which can open doors to further studies and research opportunities.
  - Inform advanced learners about scholarships and grants available for higher studies and research, and assist them in the application process.

#### **Implementation Strategy**

1. **Assessment and Identification:**
  - Implement a robust assessment system to identify slow and advanced learners early in the academic year through diagnostic tests, continuous assessments, and faculty observations.
2. **Faculty Training:**
  - Train faculty members to recognize the needs of both slow and advanced learners and to adopt differentiated teaching strategies that cater to diverse learning styles.
3. **Resource Allocation:**
  - Allocate necessary resources, including funding, lab space, and technological tools, to support the initiatives designed for both slow and advanced learners.
4. **Feedback and Continuous Improvement:**

- Establish a feedback mechanism to regularly collect input from students and faculty on the effectiveness of the initiatives and make necessary adjustments.

**5. Monitoring and Evaluation:**

- Continuously monitor the progress of slow and advanced learners, evaluating the impact of the initiatives through academic performance, engagement levels, and student satisfaction surveys.

By implementing these initiatives, the college creates an inclusive learning environment that caters to the specific needs of both slow and advanced learners. These initiatives aim to foster a supportive and challenging atmosphere where every student can reach their full potential, regardless of their learning pace or level of proficiency.

**Sydenham College, Mumbai**

- Special Coaching for weak students
- Counselling and Motivation for slow learners
- Group Study and Peer Learning
- Remedial Classes for slow learners
- Peer teaching by advanced learners
- Guidance for career planning
- Endowment Prizes for advanced learners
- Student Proficiency Award

**Secondary Training College, Mumbai**

- Re-teaching preplanning retest are undertaken individual attention and guidance is given. For effective teaching learning process our teachers use ICT for teaching. LCD projector were used in teaching.
- For slow learner students we provide them additional teaching activity, learning material, library facility, mentor facility and counseling
- For advanced learners we provide them role of mentor for mentoring to other students, leadership for arranging a program, teaching units for practice teaching, library facilities also provided to them

19. Details of Personal Counseling and Mentorship programmes for students

**Institute of Science, Mumbai**

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 wellbeing of the students.

### **Elphinstone College, Mumbai**

Personal counseling and mentorship programs play a vital role in supporting the holistic development and well-being of students in college. These programs provide a safe and confidential space for students to address personal, academic, and emotional concerns while offering guidance, mentorship, and resources to enhance their overall college experience. Here are some details of personal counseling and mentorship programs organized for students in the college:

#### **1. Personal Counseling:**

- **Professional Counselors:** Trained and licensed counselors are made available to provide one-on-one counseling sessions for students. These counselors offer a confidential and non-judgmental environment where students can discuss their concerns, including academic challenges, mental health issues, stress management, relationship problems, and career-related questions.
- **Individualized Support:** The department of Psychology works collaboratively with students to identify their specific needs, establish goals, and develop personalized strategies to address their concerns effectively. This may include developing coping mechanisms, improving study skills, managing time effectively, enhancing self-esteem, or seeking referrals to specialized services if needed.
- **Online Help:** Online help is offered if a student seeks it. This makes the student more comfortable and helps open up on personal issues.

#### **2. Mentorship Programs:**

- **Peer Mentors:** Peer mentoring programs pair senior students with incoming or younger students to provide guidance, support, and mentorship. Peer mentors help new students navigate the college environment, offer advice on course selection, study strategies, campus resources, and provide a sense of belonging and support during the transition to college life.
- **Faculty Mentors:** The college assigns faculty members as mentors to students within their respective academic departments. Faculty mentors offer academic guidance, career advice, and support students in their personal and professional growth. They may provide guidance on course selection, research opportunities, internships, and career planning, while also serving as a resource for academic and personal challenges.
- **Alumni Mentors:** Alumni are connected with current students who can offer valuable insights, career guidance, and networking opportunities. Alumni mentors share their experiences, provide advice on career paths, and offer support in navigating the transition from college to the professional world.

#### **3. Workshops and Support Groups:**

- College organizes workshops and seminars on various topics such as stress management, time management, study skills, mindfulness, mental health awareness, and personal development. These sessions provide students with practical tools, resources, and strategies to cope with challenges, build resilience, and enhance their overall well-being.

Career counseling workshops and sessions are also organized to assist students in exploring career options, developing job search skills, resume writing, interview preparation, and networking strategies.

**Sydenham College, Mumbai**

- Collaboration with M-Power for Mental Well Being of the Students
- Personal Finance Management workshop
- Careers Abroad Counselling Program
- Finance Conclave
- Career Summit (Placement)
- Personality Development and Soft Skills
- Avishkar – participation of students in research oriented workshop

**Secondary Training College, Mumbai**

1. Students are divided in groups and one professor work as mentor to them. he/she take care of all his needs and problems and solved at small groups . Those who are low achievers. by study such students study habits we suggest them to modify it
2. Keep himself with good friendship &clever students,
3. Think always positive.
4. Discuss with teacher on problems which related with learning when actual teaching is going on in the classroom.

## 20. Average percentage of placement of outgoing students

**Sydenham College, Mumbai**

Sr. No.	Number of students placed	Name of the employer with contact details	Package received	Programme graduated from
1	183	--	Rs. 9,00,000 (Highest) Lowest Rs. 3,60,000	BCOM, BMS, MCOM, BBI, BSM

**Secondary Training College, Mumbai**

Sr. No.	Number of students placed	Name of the employer with contact details	Package received	Programme graduated from
1	1	Sanabil English School	15000 PM	B Ed
2	1	Rani Sati mun school malad	18000 pm	B Ed

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

**The Institute of Science, Mumbai**

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

**Elphinstone College, Mumbai**

Sr. No.	Name of students enrolling into higher education	Programme graduated from	Name of Institution joined	Name of Programme admitted to
1.	Gavit Nidhi	BSc Biotechnology	MSc Medical Microbiology	Manchester Metropolitan University
2.	Isame Subham	BSc Biotechnology	Msc in Food Science and Technology	School of Biotechnology and BioinformaticsDY Patil ,Mumbai
3.	Ishita Sonowal	BSc Biotechnology	MSc in Neuroscience, Life Science	Sophia College ,Mumbai University
4.	Aasiya Mujawar	BSc Biotechnology	PG Diploma in Clinical Research	Mitcon Biotechnology and Pharmaceutical Technology
5.	Sailakshmi Nair	BSc Biotechnology	Masters in Creative ,Technology and Design	Ecole Intuit lab ,Mysore University
6.	Raj Patil	BSc Biotechnology	MSc in Life Science	NIT Durgapur
7.	Anshika Pegwar	BSc Biotechnology	MSc in Foresensic Science	Christ University Bangalore
8.	Mansi Tripathi	BSc Biotechnology	MSc Environmental Science	JC BOSE University of Sceience and Technology YMCA, Faridabad Haryana
9.	Shreya Sonawane	B.Sc Zoology	M.Sc Human Genetics	Indian Institute of Science, Banglore

**Sydenham College, Mumbai**

Sr. No.	Name of students enrolling into higher education	Programme graduated from	Name of Institution joined	Name of Programme admitted to
1	<p>Majority students from BCom Pursue Chartered Accountancy as their Career, so approximately 25% of the students are pursuing CA Programs. 10% of the students from BCom are pursuing their higher studies abroad.</p> <p>As regards BMS is concerned, 35% of the students had appeared for IELTS and have sought admission for Masters Program Abroad.</p> <p>Near about 80 students have enrolled for MCOM Program in Sydenham College.</p>			

**Secondary Training College, Mumbai**

Sr. No.	Name of students enrolling into higher education	Programme graduated from	Name of Institution joined	Name of Programme admitted to
1	Anuja sanjay waghmare	B Ed	M D Shah Mahila College Malad	MA

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

**Institute of Science, Mumbai**

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

<b>Sr. No.</b>	<b>Name of the Ph.D Scholar</b>	<b>Name of the Department</b>	<b>Name of the guide/s</b>	<b>Year of registration of the scholar</b>
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

Sr. No.	Name of the Ph.D Scholar	Name of the Department	Name of the guide/s	Year of registration of the scholar
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

#### Elphinstone College, Mumbai

Sr. No.	Name of the Ph.D Scholar	Name of the Department	Name of the guide/s	Year of registration of the scholar
1	Bhagyashree Kulkarni	Psychology	Dr. Vilas Padhye	2022
2	Sanjana Mehta	Psychology	Dr. Vilas Padhye	2023
3	Shraddha Nigdikar	Psychology	Dr. Vilas Padhye	2023
4	Priyanka Singh	Zoology	Dr. Rupesh Raut	2023
5	Faith D'Silva	Zoology	Dr. Rupesh Raut	2023
6	Umesh Jadhav	Zoology	Dr. Parag Masram	2022
7	Pranav Bhosale	Biotechnology	Dr. Parag Masram	2023

8	Sabhna Nair	Biotechnology	Dr. Parag Masram	2023
9	Manisha Lawre	History	Dr. Bhavna Patole	2023
10	Kevin Salve	History	Dr. Bhavna Patole	2023

### Sydenham College, Mumbai

Sr. No.	Name of the Ph.D. Scholar	Name of the Department	Name of the guide/s	Year of registration of the scholar
1	Anamika Bhar	Commerce	Dr. Iyer Radhika	Jan 2024
2	Bhavna Solanki	Commerce	Dr. Iyer Radhika	Jan 2024
3	Shruti Usgaonkar	Commerce	Dr. Iyer Radhika	Jan 2024
4	Atish Waghchoure	Commerce	Dr. Vijay Chawale	Jan 2024
5	Priyank Dubey	Commerce	Dr. Vijay Chawale	Jan 2024

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

Since HBSU was established in 2019, the university has awarded its first PhD degree in 2023-24.

### Institute of Science, Mumbai

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	Ayesha Khan	Physics	Prof. Anamika Kadam	2020	2024
2	Sharad Jadhav	Physics	Prof. Anamika Kadam	2020	2024
3	Ms.Nidhi Tiwari	Physics	Prof.S.B.Kulkarni	2020	2024
4	Chaitanya Gend	Physics	Prof. Ajay Chaudhari	2020	2024

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

### Sydenham College, Mumbai

Sr. No.	Name of the programme	Admitted Students
1	Market Aligned Skill Training Digital Marketing & Retail Marketing	50
2	Tally and GST	50

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

### Institute of Science, Mumbai

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	

Sr. No.	Name of Research fellow	Year of enrolment	Duration of fellowship		Type of the fellowship
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

## 14. 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.

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

**Institute of Science, Mumbai**

Computer Facility	Classrooms & Laboratories	Office	Total
195	22+15	02	234

**Elphinstone College, Mumbai**

Computer Facility	Classrooms & Laboratories	Office	Total
08	13	08	29

**Sydenham College, Mumbai**

Computer Facility	Classrooms & Laboratories	Office	Total
18	200 (03 labs)	15	233
Laptop - 12			12

**Secondary Training College, Mumbai**

Computer Facility	Classrooms & Laboratories	Office	Total
Computers	5	5	10
Pinter & Scanner	2	5	7
LCD Projector	2	1	3
Internet	Yes	Yes	

16. Number of equipment available in the Department

**Institute of Science, Mumbai**

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

<b>Sr.No</b>	<b>Equipment –Existing worth&gt;Rs.1.00 Lakhs</b>	<b>Numbers</b>
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
	<b>BIOCHEMISTRY</b>	
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
<b>Sr.No</b>	<b>Equipment –added during the last year</b>	<b>Numbers</b>
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
	<b>Biochemistry</b>	
1	Ultrasonicator	1
2	Bead Beater	1
3	Microscope	1
4	Ultrafiltration system	1
<b>Sr.No</b>	<b>Equipment –added during the last year</b>	<b>Numbers</b>
1	<b>EVS</b>	
	Weighing balance	1
	Microscopes (Biotechnology)	5
	Desktops (Biotechnology)	4
	<b>Microbiology</b>	
<b>Sr.No</b>	<b>Instrument</b>	<b>Numbers</b>
1	HPLC System with UV-VIS and RI Detector and Fraction Collector	1

<b>Sr.No</b>	<b>Equipment –Existing worth&gt;Rs.1.00 Lakhs</b>	<b>Numbers</b>
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

#### **Elphinstone College, Mumbai**

<b>Sr.No</b>	<b>Equipment –Existing worth&gt;Rs.1.00Lakhs</b>	<b>Numbers</b>
1.	Zoology	06
2.	Psychology	03

<b>Sr.No</b>	<b>Equipment –added during the last year</b>	<b>Numbers</b>
1.	Zoology	52
2.	Psychology	25

#### **Sydenham College, Mumbai**

<b>Sr.No</b>	<b>Equipment –Existing worth&gt;Rs.1.00Lakhs</b>	<b>Numbers</b>
1	Laptop	10
2	Computers	170
3	Projectors	09
4	Printers	09
5	Xerox Machine	06
6	Camera	15

<b>Sr.No</b>	<b>Equipment –added during the last year</b>	<b>Numbers</b>
1	Laptop	02
2	Computers	30
3	Projectors	07
4	Printers	03
5	Xerox Machine	02
6	Camera	20

#### **Secondary Training College, Mumbai**

<b>Sr.No</b>	<b>Equipment –Existing worth&gt;Rs.1.00Lakhs</b>	<b>Numbers</b>
1	CCTV	30 units
2	TV	2
3	Water cooler	3
4	Refrigerator	2
5	Computers	25

6	Pinter & Scanner	10
7	CCTV	30
8	Water cooler	2
9	Xerox machine	2

Sr.No	Equipment –added during the last year	Numbers
1	Water purifier	2
2	Interactive smart screen	3

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

**Institute of Science, Mumbai**

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.	Biochemistry	6	9	15	6	7	13
M.Sc.	Botany	9	7	16	9	7	16
M.Sc.	Environmental Science	4	7	11	4	7	11
M.Sc.	Chemistry	31	40	71	27	39	66
M.Sc.	Zoology	3	14	17	2	11	13
M.Sc.	Biotechnology	3	16	19	3	16	19
M.Sc.	Microbiology	5	15	20	5	15	20

**Elphinstone College, Mumbai**

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
B.A.	TYBA Psychology	4	14	18	2	13	15
B.Sc.	TYB.Sc Zoology	2	1	3	2	1	3
B.Sc. (BT)	TYB.Sc Biotechnolgy	9	20	29	9	20	29
B.Sc.	T.Y.B.Sc Chemistry	2	1	3	2	1	3
B.A.	T.Y.B.A History	3	4	7	3	4	7

**Sydenham College, Mumbai**

Dr. Homi Bhabha State University  
**SYDENHAM COLLEGE OF COMMERCE AND ECONOMICS**  
 B- ROAD, CHURCHGATE ,MUMBAI 400 020

**Course Wise Result Analysis :- REGULAR APRIL 2024**

Sr. No.	Class/Course	No of total Student	No. of Appeared Students	Total no. of absent students	No of Passing student	% of Passing student	O	A+	A	B+	B	C	D	F	No of Failure Stud.	% of Failure Stud	No of ATKT Stud	% of ATKT Stud
1	B.COM - 2	609	607	2	435	71	43	84	171	100	34	3	0	174	51	8	123	20
2	M.COM (MORNING) - 2	89	81	8	56	63	21	10	20	5	0	0	0	33	16	18	17	19
3	M.COM (MORNING) - 4	83	77	6	67	81	12	15	23	11	5	1	0	16	7	8	9	11
4	M.COM (EVENING) - 2	78	70	8	52	67	17	17	15	3	0	0	0	26	16	21	10	13
5	M.COM (EVENING) - 4	33	32	1	29	88	16	6	7	0	0	0	0	4	1	3	3	9
6	BBA-BANKING AND FINANCIAL SERVICES ANALYTICS - 2	50	50	0	33	66	4	13	14	2	0	0	0	17	4	8	13	26
7	BACHELOR IN SPORTS MANAGEMENT - 2	35	35	0	30	86	10	4	14	2	0	0	0	5	0	0	5	14
8	BACHELOR OF MANAGEMENT STUDIES(HONS) - 2	156	156	0	149	96	57	36	39	14	3	0	0	7	3	2	4	3
9	BACHELOR OF COM(BANKING & INSURANCE)-HONS - 2	148	148	0	115	78	8	17	39	41	9	1	0	33	11	7	22	15
10	BACHELOR OF SCIENCE (FINANCE) - 2	21	21	0	19	90	8	5	5	1	0	0	0	2	0	0	2	10
11	BACHELOR OF COMMERCE(ACCOUNTING & FINANCE) - 2	69	68	1	68	99	19	14	19	13	2	1	0	1	1	1	0	0
<b>Total</b>		<b>1371</b>	<b>1345</b>	<b>26</b>	<b>1053</b>		<b>215</b>	<b>221</b>	<b>366</b>	<b>192</b>	<b>53</b>	<b>6</b>	<b>0</b>	<b>318</b>	<b>110</b>		<b>208</b>	



Dr. Homi Bhabha State University  
**SYDENHAM COLLEGE OF COMMERCE AND ECONOMICS**  
 B- ROAD, CHURCHGATE ,MUMBAI 400 020

**Course Wise Result Analysis :- REGULAR APRIL 2024**

Sr. No.	Class/Course	No of total Student	No. of Appeared Students	Total no. of absent students	No of Passing student	% of Passing student	O	A+	A	B+	B	C	D	F	No of Failure Stud.	% of Failure Stud	No of ATKT Stud	% of ATKT Stud
1	B.COM - 2	609	607	2	435	71	43	84	171	100	34	3	0	174	51	8	123	20
2	M.COM (MORNING) - 2	89	81	8	56	63	21	10	20	5	0	0	0	33	16	18	17	19
3	M.COM (MORNING) - 4	83	77	6	67	81	12	15	23	11	5	1	0	16	7	8	9	11
4	M.COM (EVENING) - 2	78	70	8	52	67	17	17	15	3	0	0	0	26	16	21	10	13
5	M.COM (EVENING) - 4	33	32	1	29	88	16	6	7	0	0	0	0	4	1	3	3	9
6	BBA-BANKING AND FINANCIAL SERVICES ANALYTICS - 2	50	50	0	33	66	4	13	14	2	0	0	0	17	4	8	13	26
7	BACHELOR IN SPORTS MANAGEMENT - 2	35	35	0	30	86	10	4	14	2	0	0	0	5	0	0	5	14
8	BACHELOR OF MANAGEMENT STUDIES(HONS) - 2	156	156	0	149	96	57	36	39	14	3	0	0	7	3	2	4	3
9	BACHELOR OF COM(BANKING & INSURANCE)-HONS - 2	148	148	0	115	78	8	17	39	41	9	1	0	33	11	7	22	15
10	BACHELOR OF SCIENCE (FINANCE) - 2	21	21	0	19	90	8	5	5	1	0	0	0	2	0	0	2	10
11	BACHELOR OF COMMERCE(ACCOUNTING & FINANCE) - 2	69	68	1	68	99	19	14	19	13	2	1	0	1	1	1	0	0
<b>Total</b>		<b>1371</b>	<b>1345</b>	<b>26</b>	<b>1053</b>		<b>215</b>	<b>221</b>	<b>366</b>	<b>192</b>	<b>53</b>	<b>6</b>	<b>0</b>	<b>318</b>	<b>110</b>		<b>208</b>	

**Secondary Training College, Mumbai**

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
B.Ed.	B Ed	8	25	33	05	21	26

## 18. Infrastructure

**Institute of Science, Mumbai**

Sr. No.	Particulars	Numbers
1	Classrooms	08
2	Teaching Labs/ Laboratories	14
3	Research Laboratories	12
4	Museum/or any such repository	01
5	Library	05
6	Ladies Lounge/Room	01
7	Computer lab	02

**Elphinstone College, Mumbai**

Sr. No.	Particulars	Numbers
1	Classrooms	13
2	Teaching Labs/ Laboratories	09
3	Research Laboratories	01
4	Museum/or any such repository	02
5	Library	01
6	Ladies Lounge/Room	01

**Sydenham College, Mumbai**

Sr. No.	Particulars	Numbers
1	Classrooms	24
2	Teaching Labs/ Laboratories	03
3	Research Laboratories	01
4	Museum/or any such repository	--
5	Library	01
6	Ladies Lounge/Room	01

**Secondary Training College, Mumbai**

Sr. No.	Particulars	Numbers
1	Classrooms	4
2	Teaching Labs/ Laboratories	4
3	Research Laboratories	-
4	Museum/or any such -repository	3
5	Library	1
6	Ladies Lounge/Room	1
7	Classrooms	4

19. Number of Seminars/Conferences/workshops, etc. conducted during the year**Institute of Science, Mumbai**

Sr. No.	Particulars	Name	Date	Number of participants
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
	Others (specify )	<b>Excursion</b> Short Excursion to Jijamata Udyan	3rd February 2024	20
		<b>Annual Work Seminar</b> for PhD Students	7th February 2024	11
		<b>Guest Lecture</b> "Career Failures (and Successes) in Agricultural Biotechnology" by Anuradha Raman, Bayer Crop Science, St. Louis, Missouri, United States	8th February 2024	45
		<b>Excursion</b> One-Day industrial visit to Nishant Aromas Pvt Ltd, Palghar	10th February 2024	12

Sr. No.	Particulars	Name	Date	Number of participants
		<b>Guest Lecture</b>		
		“Indoor Pollution and Phytoremediation” by Dr. S.C. Sharma, Ex- Scientist, CSIR-National Botanical Research Institute, Lucknow	21st February 2024	32
		<b>Guest Lecture</b>		
		“Insights in the field of Palynology” by Prof. Meenakshi Vaidya	23rd February 2024	11
		<b>Short excursion</b> to Mahim Nature Park	24th February 2024	21
		<b>Annual Work Seminar</b> for PhD Students	7th March 2024	11
		<b>Guest Lecture</b>		
		“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 Analyzing Various Materials	2 Mar, 2024	50

Sr. No.	Particulars	Name	Date	Number of participants
		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

### Sydenham College, Mumbai

Sr. No.	Particulars	Name	Date	Number of participant
1	Seminars	1) Personality Development and Soft Skills 2) Mental Wellness 3) Embrace Nature	2023-2024	100+
2	Conferences	Viksit Bharat International Conference	2023-2024 Feb 23 & 24	300
3	Workshops	1) Seed Ball Making 2) Yoga 3) Research Methodology	2023-2024	70+

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

### Institute of Science, Mumbai

Sr. No.	Particulars	Name	Date	Number of participant
1	Seminars			
2	Conferences	14	Details given below	
3	Workshops	08		
4	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.

### Elphinstone College, Mumbai

Sr. No.	Particulars	Name	Date	Number of participant
1	Seminars	NIL	NIL	NIL
2	Conferences	NIL	NIL	NIL
3	Workshops-1	Three Day National Level workshop on "Vedic Mathematics & Advanced Applications	Feb-2024	01
4	Others(specify_)			

### Sydenham College, Mumbai

Sr. No.	Particulars	Name	Date	Number of participant
1	Seminars	NEP 2020	July 2023	03
2	Conferences	Viksit Bharat	February 2024	12
3	Workshops	MOOCS and E-Content Development, E-office	September 2023	12

**Secondary Training College, Mumbai**

Sr. No.	Particulars	Name	Date	Number of participant
	Seminars	Mr.S.A . Sonawane	24/02/2024	1
	Conferences			
	Workshops			
	Others(specify)	Resource Person & Chairperson for group presentation (National Seminar)	24/02/2024	1

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

**Institute of Science, Mumbai**

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

**Elphinstone College, Mumbai**

Sr.No.	Name of teachers	Title of the programme	Duration (From – To)
1	Dr. Radhika Iyer	Business analytics and Business intelligence	21-28 <sup>th</sup> August 2023
2	Dr. Nikita Thakre	UGC-HRDC Kumaun University, Uttarakhand, Refresher Course in Chemistry	8 <sup>th</sup> to 21 <sup>st</sup> July 2023
	Dr. Nikita Thakre	Online training on Social Media	5 <sup>th</sup> to 7 <sup>th</sup> September 2023

**Sydenham College, Mumbai**

Sr.No.	Name of teachers	Title of the programme	Duration (From – To)
1	Dr. Smita Kuntay	NEP 2020	03-09 <sup>th</sup> October

**Secondary Training College, Mumbai**

Sr.No.	Name of teachers	Title of the programme	Duration (From – To)
1	Mr.S.A . Sonawane	Faculty Development program on Educational Reaearch	25 to 31 Oct. 2023

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

**Institute of Science, Mumbai**

Particulars	Numbers
Awards	17
Patents	07

23. Details of Alumni Meet

**Institute of Science, Mumbai**

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 16<sup>th</sup> 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:







### Sydenham College, Mumbai

- ❖ Alumni Meet for the year 2022-23 was held at Welington club, Mahalaxmi. Prominent Alumni had visited the meet and shared their valuable thoughts and suggestion in enhancing the college
- ❖ The Alumni Cell without fail has published the only monthly Newsletter of our college called “The Sydenhamites”. This Newsletter is not only read by the students but by 2000+ Alumni database on every 15<sup>th</sup> of each month. This line of newsletter has been maintained and written by the members of the alumni cell.
- ❖ The alumni Cell organizes workshops and seminars where distinguished alumni conducts session for the students.
- ❖ Alumni Nexus – an event which was held in February 2024. The event was a grand success and witnessed esteemed alumni from banking, finance and entertainment sector.

You Tube Link: [https://youtu.be/tF\\_h2Z9RgcQ](https://youtu.be/tF_h2Z9RgcQ)

Instagram Reel:

<https://www.instagram.com/reel/C6mPeieMP6m/?igsh=MWo1dHduM2xpOXFsaw==>

## 24. Details of ten Distinguished Alumni

**The Institute of Science, Mumbai**

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	<a href="mailto:sharad.chaphekar@gmail.com">sharad.chaphekar@gmail.com</a>
3	Dr. Ardeshir Damania	Department of Plant Sciences, University of California, USA	530-848-2932	<a href="mailto:abdmania@ucdavis.edu">abdmania@ucdavis.edu</a>
4	Dr. K.V. Hippalgaonkar	Ex.- JDHE, Aurangabad	9820609192	<a href="mailto:kvhippal@gmail.com">kvhippal@gmail.com</a>
5	Dr. Vasant Pusalkar	Industrialist Director, Breeding Botanicals India	9443329598	<a href="mailto:vrpusalkar@yahoo.co.in">vrpusalkar@yahoo.co.in</a>
6	Prof. Sanjay Deshmukh	Ex. VC, Mumbai University	9820095085	<a href="mailto:docsvd@yahoo.com">docsvd@yahoo.com</a>
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	<a href="mailto:dranilpatil@rediffmail.com">dranilpatil@rediffmail.com</a>
10	Dr. Gautam Talukdar	Scientist F, Head, Protected Area Network, Wildlife Institute of India, Dehradun	9456178697	<a href="mailto:gautamtalukdar@gmail.com">gautamtalukdar@gmail.com</a>
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	<a href="mailto:aftab.csb@gov.in">aftab.csb@gov.in</a> <a href="mailto:aftab2006@gmail.com">aftab2006@gmail.com</a>
12	Prof. R.M. Pai	Former Prof. & Head, Dept. of Botany, Marathwada University	9960610146	

Sr. No.	Name of the Alumni	Position	Contact No.	E-mail ID
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	

### Elphinstone College, Mumbai

Sr. No	Name of the Alumni	Position	Contact No.	E-mail ID
1.	Ramdas G. Bhatkal	Publisher M.D	9820871408	ramdasbhatkal@gmail.com
2.	B.N.Srikrishna	Former Judge Supreme Court	9821221547	<a href="mailto:bnsrikrishna@gmail.com">bnsrikrishna@gmail.com</a>
3.	Jeronimo Pinto	Writer	9821731764	pintojerry@yahoo.com
4.	Aneesh Pradhan	Musician	9820033793	anepradh@gmail.com
5.	Neeta Kolhatkar	Journalist	9821084913	neetakolhatkar@gmail.com
6.	Arvind Kudchadkar	Prof. Emeritus IIT Bombay	9833518297	arvind@echeguru.com
7.	Nitin Desai	Former Under Secretary General UN	9354963104	desaind@gmail.com
8.	Ratnottama Sengupta	Filmmaker/Writer/Journalist	9830324369	ratnottamasengupta@gmail.com
9.	Atul Rajadhyaksha	Senior Advocate	9820192797	atul@rajadhyaksha.in

### Sydenham College, Mumbai

Sr. No.	Name of the Alumni	Position	Contact No.	E-mail ID
1	Nehal Desai	Managing Partner	--	--
2	Keki Mistry	CEO HDFC	--	--
3	Dilip Piramal	Chairman VIP BAGGAGE industry	--	--
4	Sanjeevani Belande	Singer, Bollywood	--	--
5	Milind Deora	Member of Rajya Sabha	--	--

**Secondary Training College, Mumbai**

<b>Sr. No</b>	<b>Name of the Alumni</b>	<b>Position</b>	<b>Contact number</b>	<b>Email ID</b>
1	Dr.Sanjay Raghunath Mohite	Assistant teacher D.S. High school Sion. Maharashtra state Government Awardee teacher 2019. State level resource person of Maths and Science	8169025026	mohitesirds@gmail.com
2	Shri Kalpesh Gaikwad	Assistant professor in Elphinstone college,Mumbai and Birla College,Kalyan on clock hour basis	8108262227	Kalpesh91gayakwad@gmail.com
3	Mrr.Ganesh Shankar Ghatak	Assistant Professor, Satish Pradhan Dnyana Sadha college, Thane	9022 479026	ganeshghatal12@gmail.com
4	Mr Rahul Ramchandra Patekar	Assistant teacher, Reliance foundation school, Lohivali	8898 628770	rahulpatekar28292@gmail.com
5	Mrs. Sangita Khare	Supervisor, D.S. High School Sion	9987 209393	Sangitakhare67@gmail.com
7	Mrs.Kalpana Patil	Supervisor, D.S. High School Sion	996708050	kalpanapatil1708@gmail.com
8	Mrs. Preksha Dixit	Assistant professor, Vartak college Vasai Road	7208486534	prekshadixit19@gmail.com
9	Mrs.Sonali Bhim	Assistant Teacher,The Scholar High School Colaba	9867665658	sonali.bhim@gmail.com
10	Mrs.Tejasvi Appa Kopatkar	Assistant Teacher St.Joseph's Convent High School	9833932420	tejasvikopatkar@gmail.com
11	Mrs.Manisha Prakash Thakare	Assistant Professor,SahyadriShikshan Seva mandali Arts and Commerce College Juchandra, Naigaon( E) (NET Qualified)	77 099 07633	tamanip403@gmail.com
12	Dr Pravin Dhangada	Assistant Professor Vartak college Vasai	8830469187	Praveen.dhangada@avc.ac.in
13	Mr Khopkar vilas	Assistant Professor Vartak Junior college Vasai	9881954100	Vilas.khopkar@avc.ac.in
14	Dr Shital Pawaskar	Associate Professor, R K T college, ulhasnagar	986976356	
15	Dr Sunil Adhikari	Principal Smt.Pushpalata madhukar madhavi college of A,C,Sci Kalher bhiwandi	8169862104	Sunil sunil280411@gmail.com
16	Dr Manali Joshi	Assistant Professor S N D T univesity		

25. 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)

<b>Institute of Science, Mumbai</b>	
Name of the department	Details of activities
<b>Botany</b>	<b>Title: Annual Work Seminar for Research Scholars</b>
	<b>Objectives:</b> Bringing together faculty members, researchers, and students to present their work and exchange knowledge, ideas, and expertise.
	<b>Context:</b> 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.
	<b>Practice:</b> The Department of Botany conducted Annual Work Seminar for Research Scholars on 7th February & 7th March 2024.
	<b>Evidence of Success:</b> 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.
	<b>Problems Encountered:</b> Space and time constraint.
<b>Physics</b>	<b>Title: One-day Certificate Oriented Workshop for Graduate Students on Characterization of Nanomaterials and illustration of Their Innovative Applications</b>
	<b>Objectives:</b> 1. To provide knowledge of characterization techniques 2. To synthesize nanoparticles 3. To study innovative applications of supercapacitor, water splitting, solar cell, electrochromism.
	<b>Context:</b> 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.
	<b>Practice:</b> Department of Physics conducted one day workshop for S.Y. <u>B.Sc.</u> and <u>T.Y.B.Sc.</u> Physics students of various colleges situated in Maharashtra
	<b>Evidence of Success:</b> 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
	<b>Problems Encountered:</b> Time constraint
<b>Chemistry</b>	Organises a NET -SET workshop for guidance of Student
	Research Scholars Meet
	Hands on Training on Instruments
<b>Microbiology</b>	Organise Journal Club where students learn critical analysis of research papers and presentation of research work.
	<b>Problems Encountered :</b> Space

**Sydenham College, Mumbai****BEST PRACTICES - I****1) Title: Prayas: "An endeavor for better future"****2) Goals:**

- a) To provide students an opportunity to contribute towards outreach programmes.
- b) To build CSR and good ethics in the minds of students by involving them in various societal development activities.
- c) To cultivate valour and humane spirit in students and make them a responsible citizen who will contribute towards nation building.

**3) Context:**

Being the foremost educational institution, it is the need of the hour to develop steadfast students who will strive to work for the society. This will help to build the bridge between the students and the society.

Sydenham College with its galore of students managed societies goes a long way in contributing towards development of the community through array of activities. Students collectively have done remarkable work by organising various social events within and outside the college thus reaching selflessly towards the community. This endeavour of Sydenham College reflects the humble hard work of students as well as teachers who are keenly involved in acting as catalyst for creating an enhanced future. We at Sydenham take small steps which ensure multiplier effect and thus making every *Prayas* an effort towards better future.

**4) Practices:**

**NSS:** The NSS Unit of Sydenham College is the foremost unit which conducts community service activities throughout the year. Students actively participate in all the activities which help to develop in them a sense of social and civic responsibility. It helps them in acquiring skills and devote their time for the service of the society. Following activities are undertaken that helps in nation building:

- 1) Blood donation Camp
- 2) Tree Plantation Drive – Nature Club
- 3) Workshop on E-waste Management
- 4) Bleach Cleaning Drive
- 5) Swachh Bharat Abhiyan
- 6) Session on Carbon footprints
- 7) Rally on "Plastic Hatao, Paryavaran Bachao"
- 8) No-Honking Day " A way towards reducing noise pollution"
- 9) Webinar on "Protect Mangroves, Preserve our Future"

- College also organises workshops, seminars and lectures on various social topics which develops a sense of social responsibility in the minds of learners.
- NSS unit with the support of alumni has contributed immensely in construction of classroom and water tank in the rural school at Dahanu Tribal Village.

**b) Social Service League:**

The SSL unit of our college works for the social upliftment of the differently abled children and senior citizen by organising events within and outside the college. SSL boast of *Ek Koshish* a social initiative which provides platform for special children and senior citizens to showcase their talents. Apart from this volunteer also visit old age home orphanage during festive season to make them feel extraordinary.

c) **Women Development Cell:** Lectures, seminars and workshops by renowned personalities are organised every year to empower women. The Cell in collaboration with SHG's organises exhibition where the women sell handmade articles for sustainable livelihood.

d) **Nature Club:** In the academic year 2023-2024, the club had organized visits to Herbal garden, nature trail. Garden redevelopment was done at Sydenham college in collaboration with alumni association, thus encouraging green initiative within the campus.

e) **Dramatic Society:** The society had organised though provoking dramas on social issues

f) **PSERF :** It is one of registered society which provides educational relief fund to students

belonging to economically backward class.

g) **Sydenham College Co-operative Stores Ltd.:** This is a student managed registered society where students are given hands on training on practical business aspects, thus making them more employable.

h) **DLLE:** In order to create more skilled workforce, there is a need to create variety of learning and training opportunities. Department of Lifelong Learning and Extension conducts variety of programs which harness the skills of the students.

i) **Gymkhana:** Sydenham College has an active gymkhana and every year more number of students participate in sports activities which inculcates in them a sense of healthy lifestyle and healthy competitive attitude. Further College also has state-of-art physical fitness center which stresses the importance of physical fitness and wellness. Further the gymkhana department also organises yoga and meditation sessions which is a step towards stress free life. This helps the students and staff to contribute more towards development of the college as well as society.

j) As a part of energy conservation drive, college has installed solar panels which are positive step towards energy conservation.

l) Canteen wet waste are converted into compost which used as manure for plants. These creative and innovative ideas are shared by students in the vicinity which is move towards waste management.

#### **5) Evidence of Success:**

Sydenham College is known for retaining social development close to its heart. Various stakeholders are involved in creating a positive impact in the lives of deprived by organising community welfare programmes related to education, health care, cleanliness, hygiene, sanitation, physical fitness, women empowerment etc. College organizes various programmes throughout the year like blood donation camps, rallies, organising workshop and seminars, stalls of SHG's etc. Sydenham alumni have contributed immensely in social development activities. They have supported in constructing schools, donating stationeries setting up clean water tank in rural schools of Dahanu. Students of NSS/SSL have undertaken BMC school education project, where slow learners are given special tuitions for specified subjects so that they excel in their education. Apart from social development, Sydenham College employs various methods for sustaining environment by adopting various ecofriendly measures within and outside the campus. Thus, Sydenham has a rich history of institutionalizing and ingraining social engagement rooted in the DNA of various stakeholders.

#### **6) Problems encountered:**

While undertaking any new initiative for social good, we encountered various challenges. For example, while undertaking free medical camps in village and slum area, people were reluctant to participate in the same as they had a sense of fear of getting diagnosed with some illness. Further to sustain the impetus of students in participating in community welfare programmes is a daunting task, as they have to dedicate much of their time to academic activities as well. Procuring sponsorship for conducting various social activities is a mammoth task.

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### **BEST PRACTICES - II**

#### **1) Title: Enhancing Educational Experience (EEE)**

#### **2) Goals:**

- a) To enhance student learning outcome by adopting effective teaching strategies
- b) To develop learner's acumen into diverse areas by building various skills so as to promote employability of the students in the job market.
- c) To develop the teachers proficiency through constant training on contemporary teaching strategies.
- d) To augment communication among teachers, researchers and industry professional in order to link classroom teaching with real world teaching.

#### **3) Context:**

There is constant evolution in the higher education as regards teaching learning process is concerned. There is a need to develop a transforming pedagogy by integrating digital technology with classroom teaching to create a pool of employable graduates.

The hall mark of Sydenham College is to develop an array of students with diverse skills to gear them up for the job market. Faculties adopt a student-centred approach by integrating traditional teaching methods with contemporary teaching strategies so as to improve insightful understanding of various subjects. This helps the students to face the challenges courageously and become responsible citizen of the nations.

**4) Practices:**

1. **Adopting modern teaching learning strategies:** Faculties adopt modern day teaching strategies to make the subjects more interesting for the learner and at the same time develop innovative skills by applying the knowledge earned in real life situation. Teachers adopt Real World teaching, computational learning, crossover learning, learning through argumentation etc. to teach subjects like accountancy, mathematics, marketing, business law, business economics etc.

**2. Certificate Courses:**

Sydenham College conducts certificate courses related to stock market, foreign trade, soft skills, communication skills, Tally, GST through Skill Development Unit, Foreign Trade Department & NCCMP department of the college. This helps the students to gain additional knowledge apart from regular classroom learning. In the academic year, Market Aligned Skill Training Program viz; retail marketing, digital marketing 30 hours certificate program were conducted in collaboration with Garware Institute of Career Education and Development

**3. Placement Cell:**

Sydenham College has an active placement cell that conducts various workshops on personality development, resume writing and vetting, interview facing skills, time management, corporate etiquettes which grooms the student to face the challenge of globalized industrial work.

**4. College societies:**

Sydenham College boast of various societies which provides rich learning experience to each learner. Societies like Public Speaking and Debating Society, Hindi Sahitya Mandal, English Literary Club, Marathi Wangway Mandal helps students to gain insight into literature. Co-opetrative stores provide hands on training to students as regards marketing, accountancy, and finance by appointing them as the student member of the society.

**5. Mentorship:**

In the era of globalization, students have revolutionary career goals. Faculties at Sydenham College act as a mentor by assisting students to choose right and ideal career path. Apart from teacher –student mentorship, college also facilitates student-student mentorship through peer learning strategy.

**6. Workshops and Seminars:**

College makes effort to organize workshop and seminars both for students and teachers. This assists the students to gain new knowledge and provide them deep understanding of the subject content. Apart from this, teacher also get a chance to communicate with researchers, academicians and industrialist which helps to integrate their concerned teaching subject with the corporate world.

**7. Quality Enhancement Programs for teachers:**

In order to keep pace with the modern teaching development, teachers are encouraged to participate in refresher and short-term courses. This helps them to augment their teaching learning skills and at the same time improve their content delivery skills.

**8. On Job Training and Research Project:**

With the implementation of NEP 2020 for PG Program, the curriculum itself is embedded with research project and On Job Training. This enables to get enhanced industry centric practical experience and enhance their knowledge and skills.

**5) Evidence of Success:**

At Sydenham College, the principal and the teachers make every effort to enhance the teaching learning process. Students are transformed from passive participant to active learners through adoption of various latest teaching learning strategies. Apart from classroom teaching college also gives more importance to practical based learning. College has near about more than 22 students managed societies which organizes various curricular and extracurricular events. Learning by doing rule is strongly followed in managing these society activities. Student has learned marketing, human resource, accounting, logistics, hospitality, time management, event management, banking etc.

**6) Problems encountered and Resources required:**

a) Due to introduction of Choice Based Semester Pattern and NEP curriculum, completing the syllabus within the time limit is a herculean task. Adoption of practical based teaching requires lot of time, which pose impediment in completion of the syllabus.

c) Being a commerce college, students enrol themselves for CA, CS, ICWA and other professional courses. They attend coaching classes for such courses. Hence it becomes difficult for them to actively participate in teaching learning process.

### Secondary Training College, Mumbai

#### 1. Extracurricular Activities

##### Objectives

- To develop the interest in extra reading.
- To develop the skills for arranging programs/activities
- To Provide a stage for students to express their thoughts.

##### Problems encountered

- No of staff less
- Financial

##### Resources required-

- Internet
- Sufficient staff
- Financial support

## 26. Achievement and Unique features of the department

### The Institute of Science, Mumbai

Name of the department	Details of Achievement
Biochemistry	1. Research oriented environemnt in the Dept. as evidenced by - i) All of the three faculty members are Ph.D. guides in more than two Subjects. ii) The WEnyna Scholarshop received by the PG student. 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 basic computer 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 department Laboratory
	5. Trained students to learn data analysis, bioinformatics, and simulation using open source softwares like R programming, Ubuntu, GROMAC
Zoology	1. Research 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 accepted 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.

#### Elphinstone College, Mumbai

**Department of Psychology-** The department of psychology has proposed a master's programme for the academic year 2024-25. The department has procured some of the latest and most standardized psychometric tests and has set.

**Department of Zoology-** Student centric approach in teaching. State of the art microscopy facility. Research promoting environment for students.

**Department of Biotechnology-** The Department has young qualified Teaching Staff & Under NEP students are given freedom of choosing their topic of research. Students are given exposure to industries and careers in field of Life Sciences.

**Department of Chemistry-** One student got selected at Jawaharlal Nehru Center for Advanced Scientific Research for his higher studies.

**Department of Mathematics-** Encourage the students for Competitive Examinations.

**Department of History-** Total Educational Visit -08, Celebration =350 years of Shivaji Maharaj's Coronation Modi workshop in Collaboration with Directorate of Archives, Govt of Maharashtra Numismatic Workshop in Collaboration with Gazetteers Office Govt of Maharashtra TYBA - All Students = A Grade

#### Sydenham College, Mumbai

Gender equality is the pivotal factor that cannot be overlooked. In order to achieve sustainable development in our Indian society, it is the need of the hour to raise awareness about gender equality in all arenas.

Sydenham College has always been in forefront in providing equal opportunity and exposure to both men and women, thus favoring gender equitable society.

College fosters gender equality by providing equal opportunity to both girls and boys in various cultural, sports and academic activities. Chairpersons and co-chairperson of various committees are appointed by rotation and girls are given opportunity to lead various events and societies.

**Secondary Training College, Mumbai**

University exam result is more than 90% of the college.

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

**Institute of Science, Mumbai**

Name of the department	Details of information as per point 49
Botany	<b>Awareness program:</b> 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.
	<b>Planting trees and green spaces:</b> 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.
	<b>Composting:</b> 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.
	<b>Encouraging sustainable practices:</b> The department encourages sustainable practices such as reducing the use of plastic, promoting recycling, and conserving water and energy.
Zoology	Maintaining butterfly garden
Microbiology	<b>Emphasis on Soft Skills:</b> 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.
	<b>Encouragement of Open-Source Software:</b> 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.
	<b>Comprehensive Data Analysis Training:</b> The curriculum includes thorough training in data analysis, equipping students with the skills to handle and interpret complex datasets effectively.
	<b>Advanced Computational Facilities:</b> The department provides access to advanced computational facilities, including bioinformatics tools, molecular dynamics simulations, and molecular docking, fostering cutting-edge research capabilities.
	<b>Specialized Areas of Focus:</b> 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.
	<b>Integration of Bioinformatics:</b> A strong emphasis on bioinformatics ensures that students are proficient in computational biology techniques, enhancing their research and analytical skills.
	<b>Hands-on Learning Experience:</b> 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.

	<p>Interdisciplinary Approach: The department fosters an interdisciplinary approach, encouraging collaboration across different scientific domains, which enriches the learning experience and broadens research perspectives.</p>
<p><b>Elphinstone College, Mumbai</b></p> <p><b>Department of Psychology-</b> The proposed master's programme MA in Applied Psychology (Clinical &amp; Counselling Practice) stands apart from as a unique applied psychology programme that has found favour with a lot of students.</p> <p><b>Department of Zoology-</b> Faculty is involved in promoting Research at undergraduate students.</p> <p><b>Department of Biotechnology-</b> The department has well equipped laboratories with free access to resources. The department promotes student for innovative research by providing all the necessary resources.</p>	
<p><b>Sydenham College, Mumbai</b></p> <p style="text-align: center;"><b><u>Nurturing Young Minds for Emotional Wellness</u></b></p> <p>Sydenham College has always been in leading edge towards nurturing inclusive development of the students in the pursuit of our mission and vision by converging not only on academics but also on numerous facades like cultural, social, emotional and intellectual development of the student. Developing a strong EQ is the need of hour which helps to manage stress and anxiety levels, make stronger connections, understanding others and overcoming complex challenges. The academic scenario is continuously changing with launching of new courses, new curriculum, entry of foreign universities, change in rules and regulations etc. Changing Academic Set-up makes student feel pressured to perform well at the cost of their mental well being. Hence mentoring the students is needed more than ever. Faculties undertook different mentoring activities like</p> <ol style="list-style-type: none"> <li>1) Tie-up with MPower – empowering minds.</li> <li>2) Online interaction with students and providing access to study material</li> <li>3) Remedial lectures, coaching, guiding and counselling before the examination</li> <li>4) Online workshop on mentoring and mental well ness by alumni cell of the college.</li> <li>5) A mentorship program to clear professional exams was conducted by CA Mr Udit Goyal</li> <li>6) Workshops and seminars helped the student to participate in various events thereby combating stress and anxiety</li> <li>7) Career guidance program by placement cell for final year students help them to explore career opportunities</li> </ol>	

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

<p><b>Institute of Science, Mumbai</b></p> <p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• <b>Qualified Faculty:</b> Highly knowledgeable, experienced, and research-oriented faculty in most departments (e.g., Zoology, Biochemistry, Microbiology, Chemistry).</li> <li>• <b>Research Facilities:</b> Well-equipped labs (Botany, Chemistry, Microbiology) and access to advanced instruments.</li> <li>• <b>Collaborations:</b> Strong interdepartmental, interdisciplinary, and external collaborations (e.g., Biochemistry, Microbiology, Botany).</li> <li>• <b>Support Systems:</b> Alumni backing (Biochemistry), conducive work environments (Biotechnology, EVS), and practical exposure in curricula (Microbiology).</li> <li>• <b>Unique Resources:</b> Medicinal plant garden (Botany), departmental library, and central instrumentation facilities (Chemistry).</li> </ul> <p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• <b>Staff Shortages:</b> Insufficient teaching and non-teaching staff across most departments, especially contractual staff in EVS and Biotechnology.</li> <li>• <b>Space Constraints:</b> Limited physical space for expansion, particularly in Biotechnology, Microbiology, and Zoology.</li> <li>• <b>Funding Issues:</b> Inadequate funding for research, practicals, and departmental growth (Biochemistry, Botany, Chemistry).</li> </ul>
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- **Resource Limitations:** Lack of essential chemicals, sophisticated instruments (EVS), and field-specific non-teaching positions (e.g., field collectors in Botany).

#### Opportunities

- **Curriculum Expansion:** Scope for introducing certificate and diploma courses to diversify offerings (Biochemistry, EVS, Chemistry).
- **Collaboration Growth:** Opportunities for new academic, industry, and interdisciplinary partnerships (Microbiology, Botany).
- **Funding Potential:** Increased potential for securing grants and external funding through national and international agencies (Biochemistry, Chemistry, Microbiology).
- **Recognition:** Possibility of becoming centers of excellence and securing aided status for departments like Biotechnology and EVS.

#### Challenges

- **Faculty Retention:** Difficulty retaining skilled contractual staff due to low salaries (EVS, Biotechnology).
- **Student Enrollment:** Declining interest in courses like basic sciences and EVS (Chemistry, EVS).
- **Resource Management:** Balancing limited resources, maintaining lab equipment, and managing high workloads due to staff shortages.
- **Infrastructure Gaps:** Space crunch, lack of hostel facilities, and inadequate infrastructure to support growing demands (Zoology, Microbiology, Biotechnology).

### Elphinstone College, Mumbai

#### Strengths:

1. **Psychology:** Prime location, state-of-the-art equipment, internship opportunities, and a counseling center.
2. **Zoology:** Comprehensive curriculum, access to advanced instrumentation, low teacher-to-student ratio.
3. **Chemistry:** Qualified faculty, syllabus-making participation, and unique UG science programs.
4. **Mathematics:** Core subject applicability, NEP-aligned syllabus, smart classrooms.
5. **Sociology:** Oldest department, qualified faculty, digitalization, strong student attraction.
6. **History:** Expert faculty, diverse curriculum, career counseling, strong alumni network.
7. **Biotechnology:** Prestigious reputation, advanced research facilities, strong industry connections.

#### Weaknesses:

1. **Psychology:** Insufficient full-time faculty.
2. **Zoology:** Vacant faculty positions, limited space for new courses.
3. **Chemistry:** Insufficient non-teaching staff, lack of industrial and international exposure.
4. **Mathematics:** Only one permanent faculty member.
5. **Sociology:** Space issues, lack of permanent faculty, few classrooms.
6. **History:** Space constraints, staff shortages, inadequate technological resources.
7. **Biotechnology:** Funding constraints, outdated infrastructure.

#### Opportunities:

1. **Psychology:** Certificate programs, workshops, and expanded internships.
2. **Zoology:** Interdisciplinary courses (Data Science, Biotechnology, IT), MOOCs.
3. **Chemistry:** Industrial collaborations, new courses, international exposure.
4. **Mathematics:** NEP-driven interactions with other colleges.
5. **Sociology:** Interdisciplinary program expansion.
6. **History:** Digital learning, heritage walks, internships, certificate courses.
7. **Biotechnology:** Research grants, start-up incubation, interdisciplinary programs.

#### Challenges:

1. **Psychology:** Addressing an unsupportive college environment.
2. **Zoology:** Boosting undergraduate enrollment, aligning with career expectations.
3. **Chemistry:** Balancing teaching and research, NEP implementation, student placements.
4. **Mathematics:** Declining student numbers, space crunch.
5. **Sociology:** Overcoming infrastructure limitations.
6. **History:** Organizational and infrastructure barriers to lectures and research.
7. **Biotechnology:** Competition, rapid technological changes, faculty retention, regulatory changes.

**Sydenham College, Mumbai****STRENGTHS**

- Part of Cluster University
- Locational Advantage
- Huge well-ventilated Smart classrooms with modern infrastructure.
- Students from diverse background help to develop cultural and social ties within them.
- More than 80% of the faculties are doctorate and remaining faculties have registered themselves in doctoral program.
- Well equipped modern gymkhana helps to develop sporting activities in the students as well as assist in promoting and maintaining healthy lifestyle through exercise.
- College also provides hostel facilities to students which attracts students from other state districts.

**WEAKNESSES:**

- Retaining temporary and visiting faculty.
- Student teacher ratio is adverse which pose difficulties for personal attention to students.
- Lack of appointment of permanent faculty for self-financing courses, which increase dependence on visiting faculty.

**OPPORTUNITIES:**

- Increasing partnership with research institutes and other universities.
- Faculty empowerment through various faculty development programme and increased participation in research based activities.
- Promoting more environmental awareness and good citizenship through tie-ups with many NGO's

**CHALLENGES:**

- Students who pursue professional course like CA, ICWA, CS along with conventional BCom course opt for distance education, since Choice Based Grading System emphasize more on examination a result very little time is available for preparation of projects assignments and external examination.
- Change in the attitude of the student towards education, teachers, peers etc.
- Yoga and meditation programs were conducted by NSS cell of the college
- A session on "Destress with Music" was organized by English Literary Club of the college.
- Library provided link to e-books and e-journals which helped the student to access different journals and books.

**Secondary Training College, Mumbai****Strengths –**

- It is the only one teacher training college in Mumbai region under the Higher and Technical Education Department of the Government of Maharashtra.
- The college is now recognized as a constituent college of Dr. Homi Bhabha State University Mumbai.

**Weakness**

- No. of faculties are less as per in NCTE norms 2014.
- The library is still not computerized

**Opportunities**

- The college is now recognized as a constituent college of Dr. Homi Bhabha State University Mumbai and the college will now promote various academic courses.

**Challenges**

- More and hard workload on less no. of teaching faculties.
- More workload on less no. of non-teaching faculties.

29. Plan of action for the next academic year.

### **Institute of Science, Mumbai**

#### **Plan of Action for the Next Academic Year by Departments**

##### **Biochemistry:**

1. Organize NET-SET preparation workshops.
2. Host an Annual Research Presentation Meet for faculty and students.
3. Facilitate Alumni Interaction programs.
4. Conduct short/long industrial visits.
5. Organize guest lectures and talks by industry/academia professionals.
6. Repair and renovate existing labs and research facilities.

##### **Botany:**

1. Develop a Fern Garden.
2. Organize a Research Scholars' Meet.
3. Host an Instrumentation Workshop.
4. Initiate an Internship Program.
5. Arrange invited talks by eminent personalities.
6. Plan long excursions/industrial visits.
7. Conduct NET-SET workshops.

##### **Environmental Science (EVS):**

1. Organize field and industrial visits.
2. Host expert guest lectures.
3. Provide hands-on experience with subject-specific software.
4. Facilitate campus placement opportunities.
5. Conduct NET-SET exam guidance workshops.
6. Host alumni meets.

##### **Chemistry:**

1. Conduct NET-SET workshops for students.
2. Organize a National Conference on Recent Trends in Chemistry.
3. Invite eminent personalities for guest lectures.
4. Host hands-on training sessions on analytical instruments.

##### **Biotechnology:**

1. Establish MoUs and collaborations with research institutes/industries.
2. Facilitate internship programs.
3. Conduct NET-SET workshops in collaboration with the Microbiology Department.
4. Promote student-alumni interactions.
5. Establish a Journal Club for research paper presentations.
6. Enhance student-faculty engagement through interactive sessions.

##### **Zoology:**

1. Host an Annual Research Presentation Meet for faculty and students.
2. Facilitate Alumni Interaction programs.
3. Conduct short/long field and industrial visits.
4. Organize guest lectures and invited talks from industry/academia.
5. Renovate and repair existing labs and research facilities.

##### **Microbiology:**

1. Conduct NET-SET workshops.
2. Host Annual Research Work Presentation Meets for faculty and students.
3. Arrange Alumni Interaction sessions to share industry experiences.
4. Plan short/long industrial visits, including waste treatment plants and microbiology facilities.
5. Invite industry and academic experts for guest lectures.
6. Repair and renovate existing labs and research facilities.
7. Establish collaborations and MoUs with research institutes/industries.
8. Facilitate internship programs in specialized fields of microbiology.
9. Conduct hands-on training workshops on bioinformatics and molecular simulations.
10. Establish a Bioinformatics Lab and Computational Facility.
11. Offer short courses in advanced microbiology topics.
12. Develop new courses in industrial and applied microbiology.
13. Organize workshops on emerging technologies such as CRISPR and metagenomics.
14. Promote entrepreneurship and innovation through startup incubation.
15. Conduct career guidance and placement workshops.

16. Train students in soft skills and CV writing for job readiness.

### **Elphinstone College, Mumbai**

The college has prepared a plan of action for the coming academic year. It includes:

**Department of Psychology-** Launch master's programme in applied psychology, run full-fledged counseling centre.

**Department of Zoology-** Developing MoUs with other colleges for field visits/ research/ teaching activities.

**Department of Chemistry-** 1. Collaboration with Industry for Instrumentation and Industrial training  
2. Increase number of publications 3. writing Textbook

**Department of English-** o increase students intake, run competitive exam courses like NET, English speaking courses

**Department of Mathematics-** Try to spread awareness for Mathematics by outreach programmes, Try to find Collaboration with other Mathematical institutes.

**Department of History-** • Research Methodology Programs • Memorandums of Understanding (MOUs) with Other Institutions • Internship with Godrej Archives • Post Graduate Programme in History.

### **Sydenham College, Mumbai**

- ❖ To develop new syllabus following the guidelines as per NEP 2020
- ❖ To innovate, introduce new courses as per the changing needs of the industry thus catering to student's requirement.
- ❖ To augment infrastructure development in the college.
- ❖ To collaborate with industry and educational institute for introducing new skill based courses, training programs etc.
- ❖ To set up additional classrooms by optimally using available space.
- ❖ To provide enhanced sports facilities for students and staff.
- ❖ To set up a cell for mental wellbeing of the staff and students.
- ❖ To develop Ed-Tech classroom for seamless delivering of lecture.
- ❖ To develop a Miyawaki garden within limited space.
- ❖ To strengthen ties with alumni and other stakeholders.

### **Secondary Training College, Mumbai**

1-Naac Gradation

2-Starting Phd Research Centre

3-Arranging workshop for students and faculty development

4-increase the number of non-teaching faculty

5-increasing number of non -teaching staff

### Accomplishments of Hon. Vice Chancellor

- **Taken over as Acting Vice Chancellor of Sir J J School of Art, Architecture and Design, a de novo Deemed to be University (March 2024)**
- **Institutes Visited as Chairman of the NAAC Peer Team for Assessment and Accreditation:**

**Shri Vaishnav Institute of Management & Science, Indore, Madhya Pradesh**

- Dates: January 16–17, 2024

**St. Mary's College, Puthanangadi, Kerala**

- Dates: November 1–2, 2023

**KRCES College, Bailhongal, Karnataka**

- Dates: November 10–11, 2023

## Patents

- 1) Tukaram D. Dongale, Ganesh S. Nhivekar, Krantiveer V. More, Mansingraj S. Nimbalkar, Rajanish K. Kamat, Device for Analyzing Oil Content in Aromatic Plants, Design Number: 367486-001, 2023. (Granted)
- 2) Tukaram D. Dongale, Manusha S. Rao, Sourabh R. Jagdale, Rajanish K. Kamat, Device for Measuring contact angle between solid-liquid interface, Design Number: 367487-001, Year-2023. (Granted)
- 3) Ganesh S. Nhivekar, Tukaram D. Dongale, Santosh Kamble, Bharat T. Jadhav, Rajanish K. Kamat, Titration Instrument to Determine Analyte Concentration, Design Number: 389732-001, Year-2023. (Granted)
- 4) Ganesh S. Nhivekar, Tukaram D. Dongale, Santosh Kamble, Bharat T. Jadhav, Rajanish K. Kamat, Piston Burette For Liquid Delivery, Design Number: 389950-001, Year-2023. (Granted)
- 5) Ganesh S. Nhivekar, Tukaram D. Dongale, Sachin S. Panhalkar, Bharat T. Jadhav, Rajanish K. Kamat, Portable Soil Tester, United Kingdom Design Number: 6338265, Grant date: 18 January, 2024. (Granted)
- 6) Somnath S. Kundale, Snehal L. Patil, Tukaram D. Dongale, Rajanish K. Kamat, A Metal Oxide Based Flexible Memory Device and Method for Fabricating the Device, Indian Patent No.: 516344, Grant Date: 28/02/2024. (Granted)
- 7) Kasturi A. Rokade, Tukaram D. Dongale, Rajanish K. Kamat, A Multi-Level Biocompatible Memory Device and Method for Fabricating the Device, Indian Patent No.: 518044, Grant Date: 01/03/2024. (Granted)
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**SCI/Scopus Indexed Research Publications**

- 1) K. A. Rokade, D. D. Kumbhar, S. L. Patil, S. S. Sutar, K. V. More, P. B. Dandge, R. K. Kamat, T. D. Dongale, CogniFiber: Harnessing Biocompatible and Biodegradable 1D Collagen Nanofibers for Sustainable Non-volatile Memory and Synaptic Learning Applications, *Advanced Materials*, <https://doi.org/10.1002/adma.202312484>, 2024. IF-29.4 (Wiley)
- 2) A. R. Patil, T. D. Dongale, R. S. Pedanekar, S. S. Sutar, R. K. Kamat, K. Y. Rajpure, Multilevel resistive switching in hydrothermally synthesized FeWO<sub>4</sub> thin film-based memristive device for non-volatile memory application, *Journal of Colloid and Interface Science*, Vol. 669, pp. 444-457, 2024. IF- 9.9 (Elsevier)
- 3) P. Babar, P. Patil, A. R. Patil, B. Jadhav, R. Ghadage, M. Kondalwade, S. Attar, R. K. Kamat, T. D. Dongale, S. Kamble, *Nymphaea Alba* for Resistive Switching Devices: Exploring the Non-Volatile Memory and Neuromorphic Computing Applications of the Plant Leaves, *ChemistrySelect*, Vol. 9 (17), pp. e202400405, 2024. IF-2.1 (Wiley)
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- 5) S. S. Kundale, A. N. Kurade, D. S. Shivade, R. K. Bhosale, P. P. Patil, S. R. Patil, K. A. Rokade, K. V. More, D. R. Chowdhury, R. K. Kamat, T. D. Dongale, Electrical and Electrochemical Investigations on Copper Oxide-Based Monolayer and Bilayer Memristive Devices, *ACS Applied Electronic Materials*, DOI: <https://doi.org/10.1021/acsaelm.3c01743>, 2024. IF- 4.7 (ACS)
- 6) S. J. Shinde, M. R. Waikar, S. R. Gurav, S. L. Patil, S. D. Ghongade, A. M. Bagwan, A. R. Sonkawade, R. K. Sonker, R. K. Kamat, T. D. Dongale, R. G. Sonkawade, Unlocking the potential of effect of gamma irradiation on  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanoparticles for high-performance resistive switching applications, *Materials Science in Semiconductor Processing*, Vol. 176, pp. 108298, 2024. IF- 4.1 (Elsevier)
- 7) R. K. Bhosale, S. S. Kundale, A. R. Shelake, H. L. Lokhande, K. A. Rokade, A. N. Kurade, D. S. Shivade, K. V. More, S. S. Sutar, R. K. Kamat, T. D. Dongale, Electrochemical synthesis and functional analysis of self-assembled Au-decorated polypyrrole for non-volatile memory and bio-inspired computing, *Organic Electronics*, Vol. 127, pp. 107013, 2024. IF- 3.2 (Elsevier)
- 8) S. B. Ghode, O. A. Patil, M. Y. Chougale, N. A. Nerlekar, S. R. Patil, C. S. Patil, A. P. Tiwari, P. K. Gaikwad, R. K. Kamat, P. B. Dandge, J. Bae, T. D. Dongale, *Energy Technology*, DOI: <https://doi.org/10.1002/ente.202300984>, 2024. IF-3.8 (Wiley)
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- 11) R. P. Patil, A. S. Nikam, S. Teli, A. V. Takaloo, R. K. Kamat, T. D. Dongale, P. Kamble, and K. M. Garadkar, NiFe<sub>2</sub>O<sub>4</sub> nanoparticles for non-volatile bipolar resistive switching memory device, *Semiconductor Science and Technology*, Vol. 38, pp. 125002, 2023. IF-1.9 (IoP)
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