



Dr. Homi Bhabha State University



सत्यमेव जयते

Government of Maharashtra



स्वातंत्र्याचा अमृत महोत्सव

# ANNUAL REPORT

## (A.Y. 2022-23)

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





**HBSU**

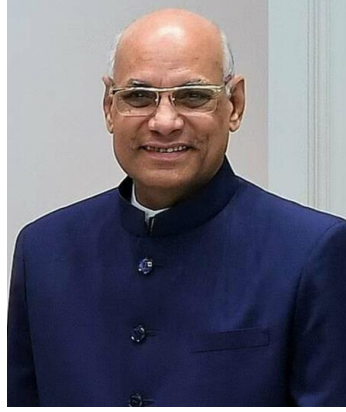
Dr. Homi Bhabha State University

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

**ANNUAL REPORT**

**Academic Year 2022-23**

**15, Madame Cama Road, Fort, Mumbai-400032 (Maharashtra)  
India**



## **SHRI. RAMESH BAIS**

**Hon'ble Chancellor, Dr. Homi Bhabha State University &  
Hon'ble Governor of Maharashtra State  
(18 February 2023 – 31 July 2024)**



## **SHRI. BHAGAT SINGH KOSHYARI**

**Hon'ble Chancellor, Dr. Homi Bhabha State University &  
Hon'ble Governor of Maharashtra State  
(05 September 2019 – 17 February 2023)**



## **SHRI. CHANDRAKANT (DADA) PATIL**

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



**PROF. RAJANISH K. KAMAT**

**Vice-Chancellor**



**PROF. YUVRAJ MALGHE**

**Registrar**



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

## **ANNUAL REPORT**

**Academic Year 2022-23**

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

With great pleasure and a sense of immense pride, I present the annual report of Dr. Homi Bhabha State University, Mumbai for the academic year 2022-23. As we reflect on the achievements and milestones of the past year, we reminisce with gratitude the unwavering support of our stakeholders, the dedication of our faculty and staff, and the relentless pursuit of excellence by our students.

Dr. Homi Bhabha State University stands as a beacon of knowledge, innovation, and intellectual growth in the lively city of Mumbai. Named after the visionary scientist Dr. Homi Bhabha, the university upholds his legacy by nurturing generations of scholars and researchers who continue to contribute significantly to various fields of study.

Dr. Homi Bhabha State University has displayed remarkable resilience and adaptability in the past year. Our faculty have seamlessly transitioned to innovative and scholarly pursuits of teaching and learning, ensuring that the quest for knowledge remained uninterrupted. Through digital platforms and creative pedagogical approaches, the university has continued to provide our students with a transformative educational experience, empowering them with the skills and knowledge necessary for personal and professional growth.

Our commitment to research and innovation has remained unwavering, as evidenced by the radical scientific, technological, socio-economic and linguistics progressions made by our faculty and students across various disciplines. In the pure and interdisciplinary domains of science, technology, humanities, and social sciences, our researchers demonstrated committed dedication to expand the horizons of knowledge and addressing the pressing challenges of our times.

Dr. Homi Bhabha State University is dedicated to academic excellence. It recognizes the importance of the holistic development of young minds. We foster an inclusive and nurturing environment that promotes creativity, critical thinking, and collaboration. Our students are encouraged to participate in extracurricular activities, community engagement initiatives, and entrepreneurial ventures; these activities help them to become well-rounded individuals poised to positively impact society.

Furthermore, our strong emphasis on industry-academia collaboration has resulted in fruitful partnerships and collaborations with leading organizations and institutions. These collaborations have enriched our students' learning experience and facilitated the translation of knowledge into real-world applications, driving economic growth and societal development.

As we move forward, especially with the paradigm shift to the new arena and opportunities presented by the National Education Policy (NEP-2020), we are committed to embrace emerging technologies, fostering transdisciplinary research, and promoting global engagement. We aim to equip our students with the skills and competencies needed to thrive in a rapidly evolving world while instilling a deep sense of social responsibility and ethical conduct.

As we embark on the next phase of our journey, we remain committed to leveraging the support from the Government of Maharashtra to further enhance the quality of education and research at Dr. Homi Bhabha State University. We will continue to forge strong partnerships with industry, collaborate with leading academic institutions, and create opportunities for our students to excel in their chosen fields. I extend my heartfelt gratitude to all our stakeholders, dedicated faculty, diligent staff, visionary administrators, supportive alumni, esteemed industry partners, and our talented and resilient students. Their collective efforts have made Dr. Homi Bhabha State University a shining example of academic excellence and a catalyst for positive change.

I invite all to explore this annual report, which comprehensively overviews our achievements, initiatives, and future plans. Let us continue to nurture a generation of thinkers, innovators, and leaders who will shape a brighter future for Maharashtra, India, and the world.

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. V. B. Helavi Reddy - Dean, Faculty of Humanities
3. Prof. Shriniwas Dhure - Dean, Faculty of Commerce & Management
4. Shri. Sunil Sonawane - Dean, Faculty of Interdisciplinary Studies
5. Dr. Vishal Banewar - Director, Innovation, Incubation & Linkages

Annual Report Published by: Prof. Yuvraj Malghe, Registrar

## **UNIVERSITY AUTHORITIES & BODIES:**

Hon. Chancellor of the University	Shri. Ramesh Bais, Hon'ble Governor of Maharashtra
Vice Chancellor of the University	Prof. Ujwala Chakradeo (28-04-2022 to 04-08-2022) Prof. (Dr.) Rajanish Kamat (05/08/2022 to till date)
Registrar of the University	Prof. Vijay Mendhulkar (03/09/2021 to 04/08/2022) Prof. Yuvraj Malghe (10/08/2022 to till date)
Director, Board of Examinations & Evaluation	Smt. Vijaya Yeole
Director, Innovation, Incubation & Linkages:	Dr. Vishal Banewar
Finance and Accounts Officer	Shri. Pravin Jain
Dean, Faculty of Science and Technology	Prof. (Dr.) Shriniwas Kulkarni
Dean, Faculty of Commerce and Management	Prof. Shriniwas Dhure
Dean, Faculty of Humanities	Dr. Vasant Helavi
Dean, Faculty of Interdisciplinary Studies	Shri. Sunil Sonawane
Director, Student Development	Prof. Vilas Padhye
Director, Knowledge Resource Centre	Prof. Selby Jose
Director, Lifelong learning and Extension	Dr. Anil R. Chougule
Director, Sports and Physical Education	Dr. Anita Malge
Director, National Service Scheme (NSS)	Dr. Parag Masram
Librarian, HBSU	Shri. Unmesh A. Nangre

## 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, The 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)	Shri. Sunil Sonawane, 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. Yuvraj Malghe, 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. Vasant Helavi, 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. Yuvraj Malghe, 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. Vasant Helavi, Principal, Elphinstone College, Mumbai and Dean, Faculty of Humanities, HBSU, Mumbai	Member
5.	19 (2) (b & c)	Shri. Sunil Sonawane, 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
21.	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

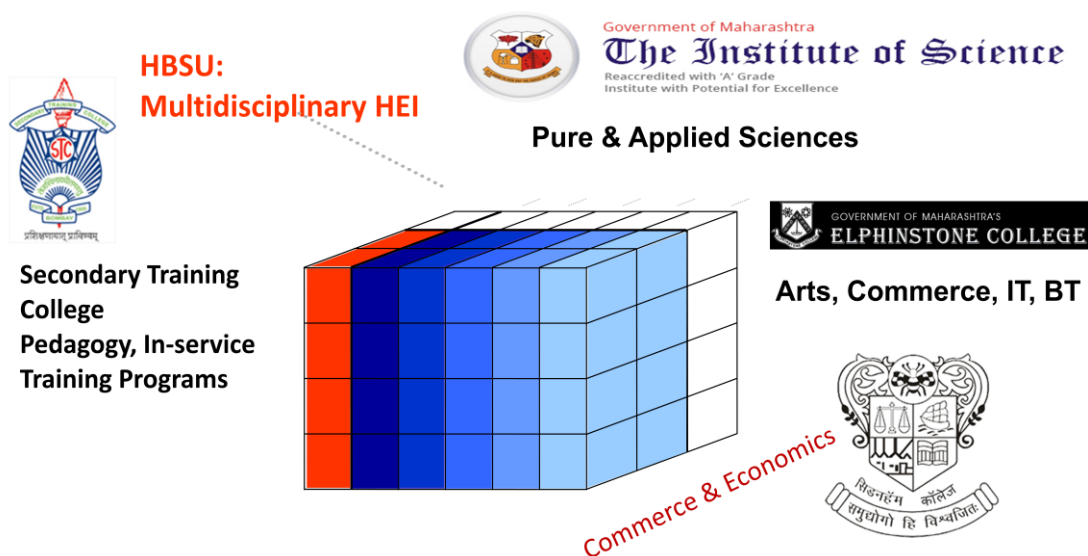
## Dr. Homi Bhabha State University, Mumbai

### Annual Report Academic Year : 2022-23

#### 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 Uchchar 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!



PROFESSIONALS	FINANCE	ACADEMICIANS & ECONOMISTS	POLITICS
Bansi Mehta N. P. Sarda Rajendra Aneja Nirmal Manenkar Y. M. Kale Rajesh Chaturvedi	Deepak Parekh Dadi Seth Uday Kotak Shyamal Gupta	Jagdish Bhagwati Dr. B. S. Ehir Dr. B. D. Ghonasgi Virendra Tulzapurkar Dr. Indu Shahani Dr. P.C. Shejwalkar	Milind Deora Omar Abdulla Vinod Khanna Mira Sanyal
SPORTSMEN	TELEVISION / ADVERTISING	INDUSTRIALISTS	CINEMA / THEATRE
Vijay Merchant Neeraj Bajaj Uday Pawar Sonal Phadke	Sheetal Mallar Aditya Hitkar Swarni Joshi Kanishma Tanna Pooja Madan Manoj Bothra	Kumar Mangalam Birla Kantikumar Podar Suresh Kotak Vijaypat Singhania Vikas Kasilwal Rajendra Mehta Padmanabh Mafatia Anirudh Dhoot Shalish Sheth	Vinod Khanna Juhi Chawla Hrithik Roshan Rahul Bose Sanjana Kapoor Sanjay Gupta Atul Agnihotri Sameera Reddy Shamak Davar Uday Chopra

## University Events in 2022-23

University first Convocation was held on 06<sup>th</sup> October, 2022



The First Convocation HBSU October 6, 2022



Collaboration with Kyoto Seika University, Japan



Collaboration with Kyoto Seika University, Japan



**Inauguration Ceremony of HBSU Office**



**DR. HOMI BHABHA STATUE UNVEILING**



**E-Learning Studio Inauguration**



**Organized Faculty Development Program on “INNOVATIVE PEDAGOGICAL PRACTICES IN HIGHER EDUCATION” from 13th March to 17th March, 2023 with MSFDA**



The poster features the logos of MSFA and HBSU at the top corners. The central text reads: "Government of Maharashtra Department of Higher & Technical Education MAHARASHTRA STATE FACULTY DEVELOPMENT ACADEMY, PUNE & DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI". Below this, the title "FACULTY DEVELOPMENT PROGRAMME" is prominently displayed, followed by the subtitle "“INNOVATIVE PEDAGOGICAL PRACTICES IN HIGHER EDUCATION”". A stylized tree graphic with educational icons is positioned to the right. The dates "MARCH 13 - 17, 2023" and the location "MSFDA CAMPUS, PUNE" are highlighted in orange boxes. At the bottom, the names and titles of the coordinators, Dr. Vilas Padhye and Mr. Suraj Babar, are listed.

**MAHARASHTRA STATE FACULTY DEVELOPMENT ACADEMY, PUNE & DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI**

**FACULTY DEVELOPMENT PROGRAMME**

**“INNOVATIVE PEDAGOGICAL PRACTICES IN HIGHER EDUCATION”**

**MARCH 13 - 17, 2023**      **MSFDA CAMPUS, PUNE**

**Dr. VILAS PADHYE**  
Course Coordinator  
Head, Department of Psychology  
Elphinstone College  
Dr. HBSU, Fort, Mumbai 32

**Mr. SURAJ BABAR**  
Coordinator, Innovation & Cutting Edge  
Technology, MSFDA  
Email: surajb.msfga@gmail.com

**Objectives of the FDP**

- Upgrade to latest pedagogical methods
- Sharpen your ICT skills
- Develop insights into psychometric testing
- Get hands-on training on latest ICT tools
- Learn how to develop MOOCs
- Explore the use of cutting edge technology in Higher Education
- Harness technology-related teaching-learning in NEP 2020



**Snapshots of FDP  
“INNOVATIVE  
PEDAGOGICAL PRACTICES  
IN HIGHER EDUCATION”**



## Accomplishments of Hon. Vice Chancellor

- **Publications in Scopus 2022-23 of Hon. Vice Chancellor, Prof. Rajanish Kamat**

Sr. No.	Document title	Authors	Source	Year
1.	<b>Machine learning-assisted design guidelines and performance prediction of CMOS-compatible metal oxide-based resistive switching memory devices</b>	<b>Kamat, R.K.</b> , Dongale, T.D., Sutar, S.S., ...Dange, Y.D., Kim, T.G.	Applied Materials Today 29	2022
2.	<b>Versatile Three-in-One Single Beam Visible Colorimeter for Undergraduate Chemistry Laboratories</b>	<b>Kamat, R.K.</b> , Nhivekar, G.S., Jagdale, S.R., ...Kamble, S.B., Dongale, T.D.	Journal of Chemical Education 99(11), pp. 3765-3772	2022
3.	<b>Spray deposited zinc tungstate thin film for non-volatile memory application</b>	<b>Kamat, R.K.</b> , Patil, A.R., Dongale, T.D., ...Rajpure, K.Y.	Materials Letters 322	2022
4.	<b>Effects of switching layer morphology on resistive switching behavior: A case study of electrochemically synthesized mixed-phase copper oxide memristive devices</b>	Kundale, S.S., Patil, A.P., Patil, S.L., ...Kim, T.G., Dongale, T.D.	Applied Materials Today 27	2022
5.	<b>Binder-Free Synthesis of Nanostructured Amorphous Cobalt Phosphate for Resistive Memory and Artificial Synaptic Device Applications</b>	Katkar, P.K., Padalkar, N.S., Kumbhar, D.D., ...Chun, S.-H., Dongale, T.D.	ACS Applied Electronic Materials 4(4), pp. 1852-1863	2022
6.	<b>Rainfall Modeling and Prediction using Neural Networks: A Case Study of Maharashtra</b>	<b>Kamat, R.K.</b> , Desai, V.P., Oza, K.S.	Disaster Advances 15(3), pp. 39-43	2022
7.	<b>Magnitude Prediction Model for Japan Seismic Tremors Using Artificial Neural Network</b>	<b>Kamat, R.K.</b> , Kamath, R.S.	2022 IEEE Pune Section International Conference, PuneCon 2022	2022
8.	<b>Leveraging the Fullest Potential of Online Teaching Learning: A Design Thinking Framework Approach</b>	<b>Kamat, R.K.</b> , Kamath, R.S.	2022 IEEE Pune Section International Conference, PuneCon 2022	2022
9.	<b>Fundamentals, Mechanisms and Key Performance Factors in Super-Capacitor</b>	<b>Kamat, R.K.</b> , Shaikh, F.F.M.	Encyclopedia of Energy Storage: Volume 1-4 1-4, pp. 299-313	2022

Sr. No.	Document title	Authors	Source	Year
10.	<b>Big data analytics for mask prominence in COVID pandemic</b>	<b>Kamat, R.K.</b> , Shinde, P.P., Desai, V.P., ...Katkar, S.V., Thakar, C.M.	Materials Today: Proceedings 51, pp. 2471-2475	2022
11.	<b>Systematic acuity of medicinal big data: need of health industry</b>	<b>Kamat, R.K.</b> , Shinde, P.P., Oza, K.S.	Personal and Ubiquitous Computing	2022
12.	<b>Design and Implementation of an Embedded System for Islanding Detection and Control Action in PV Inverter system</b>	A. G. Hake, S. B. Chavan, <b>R. K. Kamat</b>	J. Phy, IOP	2022
13.	<b>Spray pyrolysis deposited iron tungstate memristive device for artificial synapse application</b>	<b>Kamat, R.K.</b> , Patil, A.R., Dongale, T.D., ...Rajpure, K.Y.	Materials Today Communications 29	2021
14.	<b>Analysis and Prediction of Hydrothermally Synthesized ZnO-Based Dye-Sensitized Solar Cell Properties Using Statistical and Machine-Learning Techniques</b>	Sutar, S.S., Patil, S.M., Kadam, S.J., ...Kim, D.-K., <b>Kamat, R.K.</b> , Dongale, T.D.	ACS Omega 6(44), pp. 29982-29992	2021
15.	<b>Bipolar resistive switching and memristive properties of sprayed deposited Bi<sub>2</sub>WO<sub>6</sub> thin films</b>	<b>Kamat, R.K.</b> , Patil, A.R., Dongale, T.D., ...Nirmale, S.S., Rajpure, K.Y.	Materials Today Communications 28	2021
16.	<b>Forming-free and multilevel resistive switching properties of hydrothermally synthesized hexagonal molybdenum oxide microrods</b>	Patil, S.R., Mullani, N.B., Kamble, B.B., ...Kim, D.-K., <b>Kamat, R.K.</b> , Dongale, T.D.	Journal of Materials Science: Materials in Electronics 32(9), pp. 12490-12502	2021
17.	<b>Synaptic learning functionalities of inverse biomemristive device based on trypsin for artificial intelligence application</b>	<b>Kamat, R.K.</b> , Desai, T.R., Dongale, T.D., ...Patil, S.R., Kim, T.G.	Journal of Materials Research and Technology 11, pp. 1100-1110	2021
18.	<b>Stock Market Analysis using Time Series Data Analytics Techniques</b>	<b>Kamat, R.K.</b> , Vengatesan, K., Kumar, A., ...Kumar, A., Kharade, S.K.	2021 International Conference on Computing, Communication and Green Engineering, CCGE 2021	2021
19.	<b>Predictive Modeling of Tandem Silicon Solar Cell for Calculating Efficiency</b>	<b>Kamat, R.K.</b> , Katkar, S.V., Kharade, K.G., ...Patil, N.S., Kharade, S.K.	Communications in Computer and Information Science 1441, pp. 183-194	2021

Sr. No.	Document title	Authors	Source	Year
20.	<b>Text Summarization of an Article Extracted from Wikipedia Using NLTK Library</b>	<b>Kamat, R.K.</b> , Kharade, K.G., Katkar, S.V., ...Patil, N.S., Pawar, T.S.	Communications in Computer and Information Science 1441, pp. 195-207	2021
21.	<b>Adaptive Neuro Fuzzy Approach for Assessment of Learner's Domain Knowledge</b>	<b>Kamat, R.K.</b> , Desai, V.P., Oza, K.S.	Lecture Notes in Networks and Systems 290, pp. 50-57	2021

- **Patents Granted**

1. Dongale, T.D., Nhievakar, G.S., More, K.V., Nimbalkar, M.S. & Kamat, R.K.,; Device for Analyzing Oil Content in Aromatic Plants, India, 367486-001
2. Dongale, T.D., Rao, M.S., Jagdale, S.R., Kamat, R.K.,; Device for Measuring Contact Angle between Solid-Liquid Interface, India, 367487-001

- **Books:**

Synergistic Interaction of Big Data with Cloud Computing for Industry 4.0, October 2022, DOI: 10.1201/9781003279044, Edition: 1stPublisher: CRC Press, Taylor and Francis, USAEditor: Sheetal Zalte, Indranath Chatterjee, Rajanish K. Kamat, ISBN: 9781003279044

- **Book Chapters:**

The Role of Computer-Assisted Language Learning in Language Learning, December 2022, In book: Recent Trends in Science and Technology, Edition: 1Chapter: 8, Publisher: Prarup Publication, Shraddha Kharade, Smita Vishal Katkar, Kabir Kharade, Rajanish Kamat

- **NAAC Visits:**

1. Chairman of NAAC peer team to Brindavan College, Bangalore (March 21-22, 2022)
2. Chairman of NAAC Peer Team to Kirori Mal College, New Delhi (December 19-20, 2022)

- **Reviewer Assignments**

1. Materials Today: Proceedings, Elsevier Publications
2. Sensors and Actuators A: Physical, Elsevier Publications
3. Biomedical Signal Processing and Control, Elsevier Publications

## INFORMATION OF CONSTITUENT COLLEGES/ INSTITUTION

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

<b>Institute of Science, Mumbai</b>	Dr. Jairam Khobragade
<b>Elphinstone College, Mumbai</b>	Dr. Vasant Helavi Reddy
<b>Sydenham College, Mumbai</b>	Dr. Shrinivas Dhure
<b>Secondary Training College, Mumbai</b>	Dr. Sunil Sonawane

### 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

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

7. Number of research projects of the year 2022-23(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
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 CO2 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 Education	PI: Dr. Vilas Padhye Co-investigator: Shri. Dattatray Gangode	2022	2 years	National Institute for Educational Policy and Administration (NIEPA), New Delhi	Rs. 3,41,000/-

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

National collaboration			03				
Sr. No.	Organisation	Name of the Institution / Industry	Year of signing MoU	Duration	Activities	No. of Students/ Teachers participated	Outcome
1	TIFR, Mumbai	TIFR	2019	5 Yrs	Collaborative Research	66	Research
2	ICT Mumbai	ICT	2017	Continuous	Collaborative Research	48	Research
3	CMET Pune	CMET	2022	Continuous	Collaborative Research	4	Research

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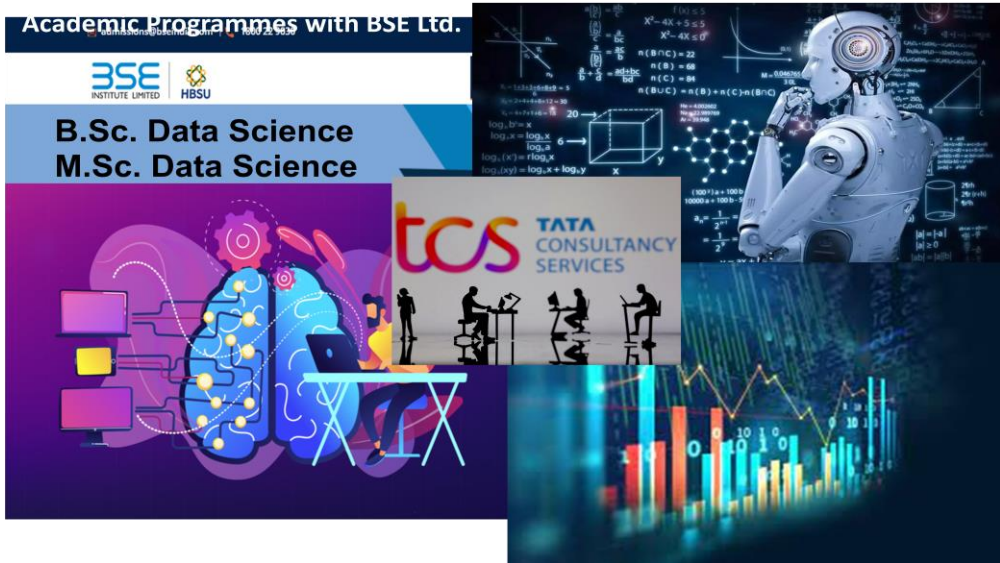
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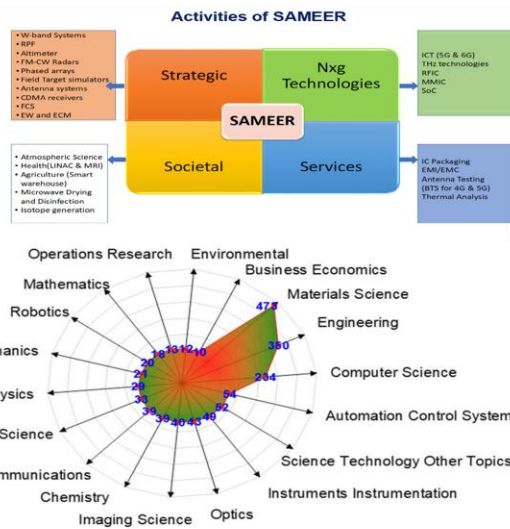
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## Research Ecosystem

- 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



9. 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

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

10. Number of publications during the year

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

Sr.No.	Particulars	Numbers
1.	Papers presented	31
2.	Number of Papers published	42
3.	Number of Books with ISBN	00
4.	Number of Impact Factor – range / average	4.70 (Average)
5.	Peer-reviewed papers(International)	40
6.	Peer-reviewed papers(National)	4
7.	Chapters in Edited Books/Volumes	11

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

Sr. No.	Particulars	Numbers
1.	Papers presented	16
2.	Number of Papers published	8
3.	Number of Citation Index – range / average	1-152
4.	Number of Impact Factor – range / average	0-5
5.	Peer-reviewed papers (International)	07
6.	Peer-reviewed papers (National)	05
7.	Books–Edited	01

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

Sr. No.	Particulars	Numbers
1	Papers presented	04
2	Number of Papers published	23
3	Number of Books with ISBN	01
4	Number of Impact Factor – range / average	12

5	Peer-reviewed papers(International)	01
6	Peer-reviewed papers(National)	05
7	Books–Authored	01
8	Books–Edited	01
9	Chapters in Edited Books/Volumes	01

### Secondary Training College, Mumbai

Sr. No.	Particulars	Numbers
1	Papers presented	02
2	Number of Papers published	06
6	Peer-reviewed papers (International)	2
7	Peer-reviewed papers (National)	4

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

### Institute of Science, Mumbai

Sr. No.	Name of the Faculty	H-index
1	Prof. Ajay Chaudhari	28
2	Prof. Dr. A.V. Kadam	13
3	Dr. Vishal Banewar	4
4	Dr. Rajesh W. Raut	9
5	Prof Y S Malghe	15
6	Dr. B. M. Patil	2
7	Dr. U. M Lekhak	20
8	Prof Rupendra Jadhav	23
9	Dr. Umesh Kakde	9
10	Dr. V. D. Mendhulkar	13
11	Prof S. B. Kulkarni	20
12	Prof. Aparna Saraf	8
13	Prof P. S. More	17
14	Prof Vandana Kamble	08
15	Prof R. M. Patil	08
16	Prof Manohar Padul	12
17	Dr. Shekar Jadhav	15
18	Dr. Shubhangi Patil	03
19	Dr. Vikas Bhangade	09
20	Shri S. B. Kashid	07
21	Prof R. B. Kale	23
22	Prof Gayatri Barabde	02
23	Prof Selby Jose	05
24	Dr. Kiran Sonawane	08
25	Dr. Mahadev Sonawane	03

### Elphinstone College, Mumbai

Sr. No.	Name of the Faculty	H-index
1	Parag Masram	2
2	Dr. Vilas Padhye	1
3	Dr. Mrinalini Kagwade	2
4	Dr. Mrinalin Kagwade	2
5	Nikita Vinod Thakare	2
6	Dr. Rupesh Raut	3
7	Dr. Samadhan Ramchandra Waghmode	6

12. 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,	201721029703	"Alloy, Bi and Tri Metallic Nanoparticles and Method for Green Synthesis of said Nanoparticles"	IN ORDER FOR GRANT UNDER SECTION 43, AWAITING NBA APPROVAL	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 Processfor Synthesizing Metal Nanoparticles within Polymeric Matrices	Granted Application, Patent Number :405579 2022	0
4	Dr. B. M. Patil	202221003201A	Microwave Assisted Synthesis Of Synroc-B From Tartrate Precursor-CBR-158120/01/2022	25-02-2022 Published waiting for granted	0

13. 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. Ayesha Khan	2022	Ph.D. student	IWAS Indian women Scientist's Association
3	Ms. Ayesha Khan	2023	Ph.D. student	Best innovative researcher-G20 summit on environment sustainability and bioenzymeInternational conference-1st Prize for paper presentation
4	Mr Sharad Jadhav	2022	Ph.D. student	ETMS-1st prize for oral presentation in conference
5	Mrs. Ashwini Pol	2023	Ph.D. student	G20 summit on environmentsustainability and bioenzymeInternational conference-2nd Prize for paper presentation
6	Mr. Abrar	2022	M.Sc. Student	Inspire Fellowship for Ph.D.
7	Chirag B. Gawali	2022	Ph.D. student	Mahajyoti Fellowship
8	Ms. Liviya Gaikwad	2023	Ph. D Student	BARTI
9	Ms. Harshala Naik	2021	Ph. D Student	UGC-NET SRF
10	Mr. Parvindar M. Sah	2021	Ph. D Student	RGST JRF

11	Mr. Pratik Jagtap	2023	Ph. D Student	BARTI
12	Mrs. Bhumika S. Ambadkar	2023	Ph. D Student	BARTI
13	Mr. Shubhangi Tayde	2022	Ph. D Student	BARTI
14	Mr. Abhijeet Salve	2022	Ph. D Student	UGC-NET SRF
15	Mr. Akshay Chavan	2022	Ph. D Student	UGC-NET JRF

14. 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	05
3.	GATE	03
4.	TOEFL	01

**Elphinstone College, Mumbai**

Sr. No.	Examinations	Number
1.	SLET	01

**Sydenham College, Mumbai**

Sr. No.	Examinations	Number
1.	NET	01
2.	SLET	02
3.	IELTS	108

**Secondary Training College, Mumbai**

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

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

**Institute of Science, Mumbai**

Sr. No.	From the host institution/university
1	Chaitanya Gend
2	Poonam Parkar Unnati Jethawa
3	Mr. Maruti Aldar
4	Mr. Keshav Darekar
5	Ms. Chaitra Shriyan
6	Miss Harshala Naik
7	Mr. Parvindar Sah

8	Mr. Pratik Jagtap
9	Mrs. Bhumika Ambadkar
10	Mr. Sarang Bhagwat
11	Mrs. Gayatri Gaydhane
12	Mr. Mayuresh Kadav
13	Mr. Ranjeet Maske
14	Ms. Sailee Raut
15	Ms. Sneha Ganpule
16	Ms. Sana Jalili
17	Ms. Mrunal Posam
18	Mr. Rajendra Choure
19	Ms. Akshada Bhadane
20	Ms. Neelam Ware
21	Ms. Sayli Mandavkar
22	Mrs. Dipali Khedekar

**Elphinstone College, Mumbai**

Sr. No.	From other institutions/universities
1	Mr. Ajay N. Gangurde
2	Mr. Sushant Sunil More
3	Mr. Ganesh Sathe
4	Mr. Sushilkumar Ghadage
5	Mr. Umesh G. Jadhao

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

**Institute of Science, Mumbai**

Name of Department	Ph.D Numbers
Physics	Chaitanya Gend – Mahajyoti Fellowship
	Poonam Parkar – Inspire Fellowship
	Amar Jadhav-Sarthi Fellowship
	Sharad Jadhav- Sarthi Fellowship
	Suchitra Sakapal- Project Associate on SERB
Chemistry	Chirag B. Gawali- Mahajyoti Fellowship
	Smita G. Gite - Mahajyoti Fellowship
Botany	Harshala Naik- UGC JRF Fellowship
	Parvindar Sah- Project Assistant RGSTC Project
	Pratik Jagtap- BARTI Fellowship
	Bhumika Ambadkar- BARTI Fellowship
EVS	Manisha Patil- Single Child fellowship

Botany	Gurunath Kashivle - BARTI Fellowship
	Shubhangi Tayade - BARTI Fellowship
	Abhijeet Salve- CSIR (Till Feb 2023) terminated
	Akshay Chavan - CSIR-UGC

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

**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	Chemistry of Cosmetics and perfumes	BSCHSEC1T	BSc	Focus on Manufacturing and marketing	2019
2	Fybsc (Sem I and II Inorganic and Organic Chemistry)	BSCHDS101T / 102T	BSc	Inorganic Chemistry, Organic Chemistry, Green Chemistry, Dyes	2019
3	Sybsc (Sem-III and IV Inorganic Chemistry)	BSCHDS301T / 302T	BSc	Skill development- Conduct Research Project	2019
4	(Sem-iii green chemistry)	BSCHDS303T	BSc	Visits to different chemistry labs	2019
5	Tybsc (Sem- V and VI Inorganic Chemistry)	BSCHDS501T / 601T	BSc	Visits to different chemistry labs	2019
6	Sem-VI SEC	BSCHSEC1601T	BSc	Conduct Research Project	2019
7	Food production and processing	USACFP501	BSc	Visit to food processing unit, practical on food processing, food preservation techniques	2019
8	Plant Breeding Analytical techniques in plant sciences	BSBTDS301T	BSc	Plant breeding, plant budding, bonsai, visit to nursery	2019
9	Economic botany	BSBTDS401T	BSc	Ornamental plants, herbs and spices, introduction to horticulture	2019
10	Pharmacognosy and Industrial Botany	BSBTDS502T	BSc	Medicinal plants and properties	2019
11	Food Management and Preservation	BSMBSE304T, BsMBDE504T, BSMBDE604T, BSMBSE501T	BSc	Fermentation Techniques; Bioprocess Technology; Food production and processing Collaboration with Microbiologist Society of India- Students were given membership, Visit to ACTREC & NMiMS, organised Food Festival for students	2019
12	Evolution of Journalism and Intellectual discourse in Modern India, G.K. & Current Affairs	BA5HSDE07, BA6HSDE08	BA	Presentation, interview techniques, preparing for civil services	2019
13	Counseling psychology	BAPSDS505T	BA	Conducting mock counselling sessions, workshops, visits to clinics	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	Sports Management	Bachelor in Sports Management	Practical Skills, Field work, Projects	2022
2	Banking and Financial Analytics	BBA (Banking and financial Analytics)	Live Trading, Mock Trading, Projects	2022
3	Bachelor of Management Studies	BMS	Personality Development Workshop, Yountre (Young Entrepreneurs Seminar)	1999
4	Banking And Insurance	BBI	Workshop on BFSI Sector, Field Visit	2003
5	BCom	BCom	Seminars on GST, IT Return Filing, CA – Interns	--

**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.	B.Ed.	Teacher Training program Micro teaching workshop Internship program	2022-23

18. Value Added Courses

**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

19. 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	Environmental Chemistry	I
2	Green Chemistry	III
3	Microorganisms and Human health	II
4	Social Psychology	II
5	Sociology of Gender	II

**Sydenham College, Mumbai**

Sr. No	Name of the Paper	Semester
1	Environmental Studies	I
2	Foundation Course	I, II, III, IV
3	Business Ethics and CSR	MCOM - I
4	Indian Ethos in Management	BMS – Sem V
5	Contemporary Issues in India	BCOM. Sem 1-4

**Secondary Training College, Mumbai**

Sr. No	Name of the Paper	Semester
1	Gender, School and Society (Gender equality)	I
2	Critical Understanding of ICT (Professional Ethics)	I
3	Knowledge and Curriculum (Professional Ethics into the curriculum)	I
4	Educational Management (Professional Ethics)	II
5	Learning and Teaching (Human Values)	II
6	Assessment for Learning (Human Values and Professional Ethics)	III
7	Language Across the Curriculum (Professional Ethics into the curriculum)	III
8	Contemporary India and Education (Human Values)	IV
9	Creating an Inclusive School (Human Values)	IV
10	Environmental Education (Environment & Sustainability)	IV

20. Number of students admitted in programmes offered

**Institute of Science, Mumbai**

Level of Programme	Name of the programme	Intake	2020-21	2021-22	2022-23
PGProg.1	M.Sc. Botany	20	20	19	14
PGProg.2	M.Sc. Biochemistry	20	20	20	20
PGProg.3	M.Sc. Biotechnology	20	20	20	20
PGProg.4	M.Sc. Chemistry	80	80	80	80
PGProg.5	M.Sc. Data Science	40	--	18	17
PGProg.6	M.Sc. Environmental Science	20	20	20	17
PGProg.7	M.Sc. Microbiology	20	20	20	20
PGProg.8	M.Sc. Mathematics	40	40	48	40
PGProg.9	M.Sc. Physics	40	40	39	39
PGProg.10	M.Sc. Zoology	20	20	20	20
PhD Prog.	Ph.D.	---	25	37	33

**Elphinstone College, Mumbai**

Level of Programme	Name of the programme	Intake	2020-21	2021-22	2022-23
UGProg.1	BA	120	108	106	141
UGProg.2	BSc	120	69	64	67
UGProg.3	BCom	240	248	242	272
UGProg.4	BSc Information Technology	60	62	54	72
UGProg.5	BSc Biotechnology	35	36	35	51
UGProg.6	BSc Data Science	60	--	12	41
PGProg.1	MSc Information Technology	30	--	--	02
PGProg.2	MSc Industrial Biotechnology	30	--	--	04
PGProg.3	MA English	20	--	--	07
PhD Prog.	Ph.D.	--	--	04	03

**Sydenham College, Mumbai**

Level of Programme	Name of the programme	Intake	2020-21	2021-22	2022-23
UGProg.1	BCOM	600	577	578	559
UGProg.2	BMS	120	119	118	116
UGProg.3	BBI	120	112	83	109
UGProg.4	BSM	60	--	37	39
PGProg.1	MCOM (ACCOUNTS)	120	109	106	99
PGProg.2	MCOM (BANKING)	120	111	102	78
PhD Prog.	Ph.D.	--	--	03	04

**Sydenham College, Mumbai**

Level of Programme	Name of the programme	Intake	2020-21	2021-22	2022-23
UGProg.1	B. Ed.	50	45	13	29

21. Teacher: Student Ratio :

Constituent Colleges/Institute	Ratio
Institute of Science, Mumbai	1:12
Elphinstone College, Mumbai	1:30
Sydenham College, Mumbai	1:81
Secondary Training College, Mumbai	1:12

22. 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:

1. **Experiential Learning:**

- **Field Trips:** Organizing visits to relevant sites or organizations related to the subject matter, allowing students to gain practical exposure and firsthand experiences.
- **Simulations:** Creating simulated environments or scenarios where students can apply theoretical knowledge and skills in a controlled setting.
- **Case Studies:** Presenting real-life situations or problems for students to analyze, discuss, and propose solutions based on their understanding of the subject matter.
- **Internships or Practicums:** Offering opportunities for students to work in professional settings related to their field of study, enabling them to apply classroom knowledge in real-world contexts.

2. **Participative Learning:**

- **Group Projects:** Assigning collaborative projects that require students to work together, share ideas, delegate tasks, and present their findings to the class.
- **Debates and Discussions:** Facilitating class debates or discussions on relevant topics, encouraging students to express their viewpoints, listen to different perspectives, and develop critical thinking skills.
- **Peer Teaching:** Encouraging students to take turns teaching and explaining concepts to their peers, promoting active learning and reinforcing understanding.

3. **Problem-Solving Methodologies:**

- **Case-based Learning:** Presenting complex real-world cases or scenarios that require students to analyze the problem, identify relevant information, and propose effective solutions.
- **Project-based Learning:** Assigning open-ended projects that require students to define and solve a problem, allowing them to apply their knowledge and skills in a practical context.
- **Design Thinking:** Using a structured approach to problem-solving, involving steps such as empathizing, defining the problem, ideating, prototyping, and testing solutions.
- **Analytical Thinking Exercises:** Providing students with challenging problems that require logical reasoning, data analysis, and critical thinking skills to arrive at solutions.

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

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

The output of learning is mainly based on the learning and teaching process, teaching is a very important activity done by the teacher, for that, the use of different teaching methods are determined by the professors according to the subjects and teaching components. Teaching is not a matter of being told how to teach but it is a bi polar process of teaching through actual activities & experience, so in the training program students are given experience of the actual teaching process through the internship program. which is based on experimental learning.

Teaching is a two-way process in which continuous participation of students is taken by the teacher for better understanding. It includes discussion method, lecture method and communicative approach.

Problem solving methodology is also used by teachers for theory subjects along with school subject methods. (pedagogy) which help students to understand the problem and how to solve the problems. Such methods were used by teachers for enhancing learning experience.

### 23. 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):

- Colleges utilize LMS platforms such as Moodle, Canvas, or Blackboard to provide a centralized online hub for course materials, assignments, quizzes, and grades.
- Professors can upload lecture notes, presentations, and supplementary resources, making them easily accessible to students at any time.
- Students can engage in online discussions, submit assignments electronically, and receive timely feedback from instructors.

2. Online Collaborative Tools:

- Tools like Google Drive, Microsoft Office 365, or cloud-based platforms enable students to collaborate on projects and share documents, spreadsheets, and presentations in real-time.
- Virtual meeting platforms such as Zoom, Microsoft Teams, or Google Meet facilitate synchronous online class sessions, guest lectures, or group discussions.
- Discussion boards and forums provide spaces for students to interact, ask questions, and exchange ideas beyond the confines of the physical classroom.

3. Multimedia and Interactive Resources:

- Online multimedia resources such as videos, animations, and simulations help illustrate complex concepts, making them more engaging and understandable for students.
- Educational platforms like Khan Academy, Coursera, or Open Course Ware provide access to a wide range of online courses, lectures, and interactive learning materials for supplementary learning or self-paced study.
- Virtual labs or simulations allow students to conduct experiments and practice skills in a safe and controlled environment.

4. Assessment and Feedback Tools:

- Online assessment platforms enable instructors to create quizzes, exams, and assignments that can be automatically graded, providing immediate feedback to students.
- Group activities using simple tools like Google Docs facilitate collaborative feedback and evaluation among students, fostering critical thinking and enhancing the learning process.
- Online surveys and feedback mechanisms allow instructors to collect student feedback on the course, teaching methods, and learning experiences, enabling continuous improvement.

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)

**Secondary Training College, Mumbai**

For effective teaching learning process our teachers use ICT for teaching. LCD projector were used in teaching. for online teaching apps like zoom, google meet, for communication approach WhatsApp, Instagram, Telegram was used by teachers Google form, Google Drive, websites, also used by teachers for collection of study materials and making teaching aids.

24. 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**

Support for Slow Learners:

- Remedial Classes: Colleges may offer additional classes or tutoring sessions specifically designed to address foundational knowledge gaps and provide individualized support for slow learners.
- Extended Deadlines: Flexible deadlines or additional time for assignments and exams can be provided to accommodate the learning pace of slow learners.
- Alternative Assessment Methods: Allowing slow learners to demonstrate their understanding through alternative assessment methods, such as oral presentations or project-based assessments, which focus on practical application rather than solely on written exams.
- Accommodations and Accessibility: Providing accommodations such as note-taking assistance, audio recordings of lectures, or assistive technologies to ensure equal access to learning materials for slow learners.
- Mentorship and Guidance: Pairing slow learners with mentors or peer tutors who can provide guidance, support, and encouragement throughout their academic journey.

Enrichment Programs for Advanced Learners:

- Independent Study: Allowing advanced learners to pursue independent research projects, under the guidance of a faculty mentor, to explore topics beyond the regular curriculum.
- Research Opportunities: Facilitating involvement in research projects, internships, or co-op programs that allow advanced learners to gain practical experience and work with faculty on cutting-edge research.

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**

For slow learner students we provide them additional teaching activity, learning material, library facility, mentor facility and counselling

In writing work - resubmission of activity reports, writing of lesson plan two or three times done by such students

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

Discuss with them on various aspects to fulfill their requirement of advance knowledge/additional knowledge regarding competitive exams, CTET SET, NET

## 25. 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**

- Mental Health and Meditation
- Financial Literacy Program
- Careers Abroad Counselling Program
- Career Summit (Placement)
- Personality Development and Soft Skills

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

Facility of counselling is provided students --

- 1 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.
- 5 Those who become late to reach the college. - some students are not modifying their traveling schedule though many other transport facilities are available. We discuss with them about importance of time and time management.
- 6 Those who never submit reports related to internal practical at given time. - one or two students try to do such practice about late submission which is not good. We force them to maintain our college discipline and rules of practical report submission. We guide to such student that never do such practice which will make bad effect of your academic career and score

- 7 Those who have personal problems, family problems, economic problems, social problems, we guide them and discuss with them on remedies how to solve such problems and how you will be feel good.
- 8 Student development programs are also organized for self-awareness of the students

26. Average percentage of placement of outgoing students

**Institute of Science, Mumbai**

Sr. No.	Number of students placed	Name of the employer with contact details	Package received	Programme graduated from
1	2	Metal Power Analytical Pvt. Ltd., Andheri (east), Mumbai	240000/-	M.Sc.- 2023
2	1	HYTHANE Lab	264000/-	M.Sc.-2022

**Elphinstone College, Mumbai**

Sr. No.	Number of students placed	Name of the employer with contact details	Programme graduated from
1	1	Asset Online Private Limited	BSC IT
2	1	AU Small Finance Bank	Bcom
3	1	Boddhi Tree Foundation	BA
4	1	Hamari Pahchan NGO	BSC IT
5	1	Hariyali	BA
6	1	ICHARS Support Foundation	BA
7	1	Indian Gifts Portal	BA
8	1	Krsh Welfare Foundation	Bcom
9	1	Learn10x	BSc
10	1	Motilal Oswal Financial Services Limited	BSc Biotechnology
11	3	Muskurahat Foundation	BSc., BA. BSc. Biotechnology
12	1	Nerdy Academy	BSC IT
13	1	OS Infotech	BSC IT
14	1	Skyland Travels	BSc Biotechnology
15	2	Support And Care Humanity Foundation	BA, BSc. IT
16	1	Tare Zameen Foundation	BA
17	1	Teachnook	BSc Biotechnology
18	2	Torus Digital Private Limited	Bcom
19	1	Woodcraft Events & Entertainment	Bcom
20	1	XcitEducation Foundations	BSC IT

**Sydenham College, Mumbai**

Sr. No.	Number of students placed	Name of the employer with contact details	Package received	Programme graduated from
1	148	--	Rs. 9,00,000 (Highest) Lowest Rs. 3,00,000	BMS, BCOM, MCOM, BBI

### Secondary Training College, Mumbai

Sr. No.	Number of students placed	Name of the employer with contact details	Programme graduated from
1	1	Bharathi Academy English High School Virar	B.Ed.
2	1	Cama Road Municipal School Andheri	B.Ed.
3	1	Madhyamik aashram Shala Urse,Dahanu	B.Ed.
4	1	Matrix Academy School CBSE Virar West	B.Ed.
5	1	Modern School and Junior college, Vashi	B.Ed.
6	1	Pratiksha Nagar Mahanagarपालिका Marathi Shala kramank -1,Sion	B.Ed.
7	1	Shankar Rao Chauhan Vidyalaya and Kanishth Mahavidyalay	B.Ed.
8	1	Shasakiy Madhyamik Aashram Shala Savar Sahi Pen	B.Ed.
9	1	shasakiy Madhyamik uchcha Madhyamik aashram Shala, Kuntal ,Taluka Murabad District Thane	B.Ed.
10	1	Shaskiya Madhyamik Ashram Shala Govade Palghar	B.Ed.
11	1	Sir J.P High School, Malad	B.Ed.
12	1	Veer Wajekar A.S.C. college Pundhe	B.Ed.
13	1	English medium aashram School savaroli Taluka Shahpur District-Thane	B.Ed.
14	1	Madhyamik Uchch Madhyamik aashram Shala,Gonde Taluka Dahanu	B.Ed.
15	1	MPS Shaskiya Madhyamik Shala Charkop Kandivali	B.Ed.

27. Percentage of student progression to higher education (only for the year 2022-23)

### 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	Janhavi Mogal	BĀ	Mumbai University	MA
2	Vaishnanvi Zha	BĀ	K C College	MA
3	Mohammad Wasti	BĀ	K C College	MA
4	Priyanka Khapre	BĀ	K C College	MA
5	Kshitij Kumbhare	BĀ	TISS	MA
6	Sumeet Kharde	BĀ	IGNOU	MA

### 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	Sheetal Ramesh Rathod	B.Ed.	M.A.-IGNOU Open Uni M.Lib-Y C M O U	M.A.Sociology and M.Lib.
2	Aishwarya Arvind Shelar	B.Ed.	Mumbai University	M.A.
3	Rahul Suker Borsa	B.Ed.	Mumbai University	M,Sc.
4	Sneha Rajendra Nore	B.Ed.	Government College of Education ,Panvel	M.Ed.
5	Ankita Anand Kambali	B.Ed.	Mumbai University	M.A..Education
6	Mrunal SanjayBathe	B.Ed.	Mumbai University	M.A.Marathi

28. 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	Mr. Gaurav Sawant	Mathematics	Prof. Selby Jose	2019
2	Ms. Meenal Kolkar	Mathematics	Prof. Selby Jose	2021
3	Nikki Huria	Botany	Prof. Aparna Saraf	2020
4	Divya Lobo	Botany	Prof. Aparna Saraf	2020
5	Liviya Gaikwad	Botany	Prof. Aparna Saraf	2021
6	Neha Mourya	Botany	Prof. Aparna Saraf	2022
7	Shubham Burande	Botany	Prof. Aparna Saraf	2022
8	Shubham Tanpathak	Botany	Prof. Aparna Saraf	2022
9	Dwijali Deo	Botany	Prof. Aparna Saraf	2022
10	Sheetal Sharma	Botany	Prof. V.D. Mendhulkar	2019
11	Chaitanya Gend	Physics	Prof. Ajay Chaudhari	2020-2021
12	Poonam Parkar	Physics	Prof. Ajay Chaudhari	2021-2022
13	Unnati Jethawa	Physics	Prof. Ajay Chaudhari	2022-2023
14	Mr. Maruti Aldar	Chemistry	Dr. Vishal Banewar	2019-20
15	Mr. Keshav Darekar	Chemistry	Dr. Vishal Banewar	2021-22
16	Ms. Chaitra Shriyan	Chemistry	Dr. Vishal Banewar	2022-23
17	Miss Priyanka Pataskar	Chemistry	Prof.Gayatri Barabde	2020-21
18	Mr. Abhishek Dhumal	Chemistry	Prof.Gayatri Barabde	2022-23
19	Mr. Shriram Suryawanshi	Chemistry	Prof.Gayatri Barabde	2022-23
20	Mr. Prashant Wadekar	Chemistry	Prof.Gayatri Barabde	2022-23
21	Mr. Akshay Botle	EVS	Prof.Gayatri Barabde	2021-22
22	Miss Sayli Salgaokar	EVS	Prof.Gayatri Barabde	2021-22
23	Amar Jadhav	Physics	Prof. Anamika V. Kadam	2020-21
24	Sharad Jadhav	Physics	Prof. Anamika V. Kadam	2020-21
25	Suchitra Sakapal	Physics	Prof. Anamika V. Kadam	2020-21
26	Ayesha Khan	Physics	Prof. Anamika V. Kadam	2020-21
27	Aswini Pol	Physics	Prof. Anamika V. Kadam	2020-21
28	Bhalchandra Mandalekar	Physics	Prof. Anamika V. Kadam	2020-21
29	Mr. Vijay Kule	Physics	Dr. Kiran G. Sonawane	2022-23

30	Miss Harshala Naik	Botany	Dr. Rajesh Raut	2020-21
31	Mr. Parvindar Sah	Botany	Dr. Rajesh Raut	2020-21
32	Mr. Pratik Jagtap	Botany	Dr. Rajesh Raut	2020-21
33	Mrs. Bhumika Amdadkar	Botany	Dr. Rajesh Raut	2020-21
34	Mrs.Minakshi N. Bhatu	Chemistry	Dr.Shubhangi Patil	2022-23
35	Mr. Guruprasad Mavlankar	Chemistry	Dr.Shubhangi Patil	2022-23
36	Ajay Lalan Vishwakarma	Physics	Dr. M. R. Sonawane	2021-2022
37	Shruti Warma	Physics	Dr. M. R. Sonawane	2021-2022
38	Brijesh Yadav	Physics	Dr. M. R. Sonawane	2021-2022
39	Ms. Swati Girwale	Biochemistry	Dr. M. V. Padul	2021-22
40	Ms. Sailee Raut	Biotechnology	Dr. U. M. Lekhak	2021-22
41	Ms. Sneha Ganpule	Biochemistry	Dr. U. M. Lekhak	2021-22
42	Sana Sajjad Jalili	Microbiology	Dr. U. M. Lekhak	2022-23
43	Priyanka Deshmukh	Biochemistry	Dr. M. V. Padul	2022-23
44	Bapusaheb Shinde	Zoology	Dr S.B.Chaudhari	2022-23
45	Chetana Kanekar	Zoology	Dr S.B.Chaudhari	2022-23
51	Snehal Phunde	Zoology	Dr. Manisha Kuklarni	2022-23
52	Mr. Ganesh Naik	Zoology	Dr. Manisha Kuklarni	2022-23
53	Mr.Shashank More	Zoology	Dr. Manisha Kuklarni	2022-23
54	Miss.Aparna Ghadi	Zoology	Dr. Manisha Kuklarni	2022-23
55	Miss.Snehal Punde	Zoology	Dr. Manisha Kuklarni	2022-23
56	Ms. Manisha Patil	Zoology	Dr. Manisha Kuklarni	2022-23
57	Ms. Revathy Swami	Zoology	Dr. Manisha Kuklarni	2022-23
58	Ms.Saiba Qureshi	Zoology	Dr. Manisha Kuklarni	2022-23
59	Ms. Rahilah Shaikh	Physics	Prof. Rohidas B Kale	2022-23
60	Ms. Sonali Pingale	Physics	Prof. Rohidas B Kale	2022-23
61	Mr. Rohit Patil	Physics	Prof. Pravin More	2021-22
62	Mrs. Gopika Rajan Nair	Physics	Prof. Rohidas B Kale	2022-23
63	Ms. Rukhsar Momin	Physics	Prof. Rohidas B Kale	2022-23
64	Mr. Gurunath Kashivale	Botany	Prof. Umesh B. kakde	2022-23
65	Akshay Chavan	Botany	Prof. Umesh B. kakde	2022-23
66	Ms Shubhangi Tayade	Botany	Prof. Umesh B. kakde	2022-23
67	Ms Ayesha Khan	Botany	Prof. Umesh B. kakde	2022-23
68	Manjiri Talanikar	EVS	Prof. Umesh B. kakde	2022-23
69	Ms Shivani Aawle	EVS	Prof. Umesh B. kakde	2022-23
70	Ms.Archana R. Baraskar	Chemistry	Prof. Ratnamala P. Sonawane	2019-20
71	Ms. Satyabhama Vishwakarma	Chemistry	Prof. Ratnamala P. Sonawane	2019-20
72	Mr. Mohan Sagare	Chemistry	Prof. Ratnamala P. Sonawane	2019-20
73	Mr. Shivhari Gawand	Chemistry	Prof. Ratnamala P. Sonawane	2019-20
74	Smita G. Gite	Chemistry	Prof. Ratnamala P. Sonawane	2020-21
75	Dhiraj A. Sawant	Chemistry	Prof. Ratnamala P. Sonawane	2022-23

**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	Anam Ansari	Botany	Dr. Rahul Zanan	2022
2	Pravin Sangale	Botany	Dr. Rahul Zanan	2022
3	Mr. Ajay N. Gangurde	Botany	Dr. Rahul Zanan	2022-23
4	Mr. Sushant Sunil More	Botany	Dr. Rahul Zanan	2022-23
5	Mr. Ganesh Sathe	Microbiology	Dr. Samadhan Waghmode	2022-23
6	Mr. Sushilkumar Ghadage	Microbiology	Dr. Samadhan Waghmode	2022-23
7	Mr. Umesh G. Jadhao	Zoology	Dr. Parag P. Masram	2022-23

**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	Shri Dhananjay Salgaonkar	Commerce	Dr. Radhika Iyer	2022
2	Pankaj Ramesh Labrath	Business Economics	Dr. Anil Chougule	2022

29. Number of Ph.D. awarded during the year (2022-23)

Since HBSU was established in 2019, the university has awarded its first PhD degree in 2022-23.

**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	Jayesh Tamhanekar	Chemistry	Dr. Sushama Ambadekar	2020-21	2022-23

30. Other programmes offered by the college/institute (Bridge Course/ Certificate Course / Diploma Course / Skill Development Course 2022-23)

**Elphinstone College, Mumbai**

Sr. No.	Name of the programme	Admitted Students
1	Bridge Course in Basic Laboratory Techniques in Biotechnology	20
2	Bridge course on Basic techniques in Microbiology	46
3	Ancient Indian History	30

**Sydenham College, Mumbai**

Sr. No.	Name of the programme	Admitted Students
1	Diploma and Advanced Diploma in Foreign Trade	78
2	Bridge course on Basic techniques in Microbiology	46
3	Ancient Indian History	30

31. 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	Granting agency
1	Ms.Poonam Parkar	2022	2022-2027	Inspire Fellowship	DST-Inspire
2	Miss Harshala Naik	2020	2020-2025	UGC-JRF	UGC
3	Mr Akshay Chavan	2020	2020-2025	UGC-JRF	UGC

32. 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	62	12	82

**Sydenham College, Mumbai**

Computer Facility	Classrooms & Laboratories	Office	Total
18	170 (03 labs)	15	203
Laptop - 10			10

**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	

33. Number of equipment available in the Department

**Institute of Science, Mumbai**

Sr.No	Department	Equipment –Existing worth>Rs.1.00Lakhs	Numbers
	Botany	Nano Particle Analyser (NTA) Nanosight (UK) LM 20 1 Sonicator Ultra-sonic 1 Refrigerated Centrifuge Eppendorf 5101R HPLC Agilent 1200 series 1 HPTLC CAMAG 1 Cell Counter Guava PCA 1 Bioreactor INFORS HT 1 Inverted Microscope Olympus CH 51 1 UV-Vis Spectrophotometer Shimadzu-1800 2 PCR (Gradient) 1 Microplate Reader Biotek 1 Research Microscope Olympus with Photography 1 Incubator Shaker 4 Oil Extractor 1 Klejdhal Apparatus 1 HPTLC-MS- interface 1 Balance 1 Ultra water Purification system 1 Flame Photometer 1 Hot Air Oven 1 Non-Refrigerated Centrifuge Eppendorf 2 -40 Refrigerator 1	
	Biochemistry	Spectrophotometer Multimode plate reader 2D Electrophoresis Deep freezer Shaking incubator Cooling centrifuge Ultrasonicator HPLC Table top centrifuge	1 1 1 1 1 1 1 1 1
	Chemistry	Chemistry-FTIR Chemistry -Microwave Workstation Chemistry- Electrochemical Work station and Impedance Analyzer Chemistry- Rotatory Evaporator Chemistry- PL Chemistry - Solar Simulator Chemistry- UV-Visible Spectrophotometer Chemistry- TG-DTA Analyzer Chemistry - XRD Chemistry-High Temp Muffle Furnce Chemistry- UV-Visible NIR Spectrophotometer Chemistry- HPLC	
	Physics	SEM FTIR UV-Vis-NIR Spectrometer PL Workstation	

Sr.No	Department	Equipment –added during the last year	Numbers
	Botany	Balance Analytical Liquid Handling System	
	Biochemistry	Ultrasonicator Bead Beater Microscope Ultrafiltration system	1 1 1 1
	Chemistry	FTIR Electrochemical Work station and Impedance Analyzer Rotatory Evaporator Solar Simulator Fume Hood	

### Elphinstone College, Mumbai

Sr. No.	Equipment –Existing worth>Rs. 1.00 Lakhs	Numbers
1	Fourier-transform infrared spectroscopy (FTIR)	01
2	Refrigerated centrifuge	01
3	Research microscope	01
4	Refrigerator	01
5	Stereo zoom microscope	01
6	Microtome	01

Sr. No.	Equipment –added during the last year	Numbers
1	Fourier-transform infrared spectroscopy (FTIR)	01
2	Research microscope	01

### Sydenham College, Mumbai

Sr. No.	Equipment –Existing worth>Rs. 1.00 Lakhs	Numbers
1	Laptop	10
2	Projectors	09
3	Printers	09
4	Xerox Machine	06

Sr. No.	Equipment –added during the last year	Numbers
1	Printers	03
2	Laptops	03
3	Desktop	02
4	Xerox Machine	02

### Secondary Training College, Mumbai

Sr. No.	Equipment –Existing worth>Rs. 1.00 Lakhs	Numbers
1	CCTV	30 units
2	TV	2
3	Water cooler	3
4	Refrigerator	2

Sr. No.	Equipment –added during the last year	Numbers
1	Computers	25
2	Printer & Scanner	10
3	CCTV	30
4	Water cooler	2
5	Xerox machine	2

34. 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.	Botany	03	11	14	03	11	14
M.Sc.	Biochemistry	04	13	17	2	13	15
M.Sc.	Biotechnology	04	14	18	03	14	17
M.Sc.	Chemistry	33	38	71	25	36	61
M.Sc.	Mathematics	14	28	42	12	26	38
M.Sc.	Physics	13	26	39	11	22	33
M.Sc.	Zoology	2	12	14	2	12	14

**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.	B.A.	48	80	128	34	63	97
B.Sc.	B.Sc.	06	16	22	5	11	16
B.Com	B.Com	155	118	273	103	81	184
B.Sc. Information Technology	B.Sc. Information Technology	62	09	71	58	7	65
B.Sc. Biotechnology	B.Sc. Biotechnology	11	20	33	10	17	27

**Sydenham 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.Com.	B.Com.	302	222	524	221	162	386
BMS	BMS	51	57	108	52	51	103
BBI	BBI	30	47	77	23	42	65
M.Com.(M)	M.Com.(M)	38	52	90	28	49	77
M.Com(E)	M.Com(E)	17	12	29	16	11	27

**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.	10	19	29	10	17	27

## 35. Infrastructure

**Institute of Science, Mumbai**

Sr. No.	Particulars	Numbers
1	Classrooms	08
2	Teaching Labs/ Laboratories	14
3	Research Laboratories	12
4	Library	01
5	Ladies Lounge/Room	01

**Elphinstone College, Mumbai**

Sr. No.	Particulars	Numbers
1	Classrooms	14
2	Teaching Labs/ Laboratories	09
3	Research Laboratories	07
4	Library	01
5	Ladies Lounge/Room	01

**Sydenham College, Mumbai**

Sr. No.	Particulars	Numbers
1	Classrooms	24
2	Teaching Labs/ Laboratories	03
3	Research Laboratories	01
4	Library	01
5	Ladies Lounge/Room	01

**Secondary Training College, Mumbai**

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

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

Sr.No.	Particulars	Name	Date	Number of participant
1	Workshops	Three days National workshop on NET-SET Guidance organised by Chemistry Dept.	13 to 15 Oct, 2022	105
2	Other (Training Course)	Organized a Seven-Day Hands-on Training Course on Instrumentation Organized by The Department of Botany, Chemistry & Physics Dr Homi Bhabha State University The Institute of Science, Mumbai,	28 Jan to 3 Feb, 2023.	76

### Elphinstone College, Mumbai

Sr. No.	Particulars	Name	Date	Number of participants
1	Seminars	Life Style for Environment	17-05-2023	65
3	Workshops	Micromania	28-02-2023	50
		Skills In Counselling & Psychotherapy	Feb 27, 28 & Mar 01, 2023	24

### Sydenham College, Mumbai

Sr. No.	Particulars	Name	Date	Number of participant
1	Seminars	1) Career Abroad 2) Financial Planning 3) Gender Equity 4) Yoga	2022-2023	100+
2	Workshops	1) Hydroponics plantation 2) Personality Development 3) Women Wellness	2022-2023	100+

### Secondary Training, Mumbai

Sr.No.	Particulars	Name	Date	Number of participants
1	Workshops	Life skills for sustainable life	9/4/2022	119
2	Others (specify SDP)	Conflict Management, Mental Health & Well-being	2 & 3 Feb 2023	80

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

### Institute of Science, Mumbai

Sr.No.	Particulars	Name	Date
1	Conferences	Prof. Dr. Anamika V. Kadam Dr. B. M. patil Prof. Dr. Manisha Kulkarni Prof. Umesh B. Kakde	2 (17-19 Nov 2022 & 09-10 Nov 2022) 4 1 2
2	Workshops	Prof. Rohidas B. Kale	2 (26 - 27 Sep. 2022 and 28 Jan. to 03 Feb. 2023)
3	Others (specify _____)	Prof. Dr. Anamika V. Kadam	Training Program- (05-09 Dec 2022)

### Elphinstone College, Mumbai

Sr.No.	Particulars	Name	Date	Number of participant
1	Seminars	Dr. Radhika Iyyer	01-04-2023	22
2	Seminars	Dr. Radhika Iyyer	01/02/23 to 07/02/23	65
3	Seminars	Dr. Radhika Iyyer	12/04/23 to 18/04/23	45
4	Seminars	Dr. Radhika Iyyer	01/03/23 to 12/03/23	38

5	Workshop: Introduction to Innovative Pedagogies in Higher Education	Dr. Radhika Iyyer	Jan 2023 and March 2023	47
6	Workshop: MS-DEED level 2 master trainer program	Dr. Samadhan Waghmode	19/12/2022-30/12/2022	35
7	Workshop: Introduction to Innovative Pedagogies	Dr. Samadhan Waghmode	27/07/2022-28/07/2022	53
8	Workshop: MS-DEED Level 1 Online Workshop on 'Introduction to Innovative Pedagogies for College Teachers, IISER, Pune), 15-16 June 2023 (Sustainable Development organized by YASHADA Pune)	Nikita Thakare	5-7 Jan 2023	38
9	Workshop: Trailing City-A three Credit Certificate Course in Reserach Methodology, FDP, Art of Teaching in HEI's	Dr. Bhavana Patole	8th August to 26th August 2022, 1st to 9th June 2022	27

### Sydenham College, Mumbai

Sr.No.	Particulars	Name	Date	Number of participant
1	Conferences	1) One Day International Conference on Contemporary Trends in Humanities, Commerce and Basic and Applied Sciences & Charting Sustainable Development 2) Conference on 12th April 2022 and title of the conference: "India as an Emerging global power: Past, Present & Future" 3) Asia Pacific International Conference (APIC), 6th - 7th January 2023 4) Conference organised by Shivaji University Teachers Association Date :26-02-2023	15/2/2023  12/04/2022  6 & 7 <sup>th</sup> January 2023  26/02/2023	Shri Sagar Kotkar  Dr. Vijay Chawale  Prof. Dr.S.S.Dhure  Dr. Anil Chougule

### Secondary Training College, Mumbai

Sr.No.	Particulars	Name	Date
1	International Webinar	Education: key to Unlock Sustainable Development Goals	7 & 8 April 2022
2	Webinar	Mathematics Webinar	26/11/2011
3	Webinar	Mathematics Webinar	31/01/2023
4	Online National Seminar	NEP 2020 Changing directions and challenges in Education	15 & 16 March 2023
5	Online National Seminar	College of Education and Physical Education Jalgaon "New approach of Education and Research after post COVID-19 pandemic situation."	06 / 03/ 2023
6	National Seminar	Seva Sadan College of Education Ulhasnagar Thane "Women Empowerment: Looking Back Looking Forward"	18 / 03/ 2023
7	National online workshop	Secondary Training College. Mumbai "Life skills: Skills for	09 /04/ 2022

		sustaining life”	
8	State Level Webinar	Department of Education Kavatri Bahinabai Chaudhari North Maharashtra University Jalgaon “National Education Policy- 2020 and Education System”	18 /08/ 2022
9	State Level Workshop	Director of Higher Education, Maharashtra state, Pune “Institutional Development Plan”	03 /12/ 2022

38. 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	Prof. Dr. Anamika V. Kadam	Training programme on Advances in Applications of Nanotechnology	05-09 Dec 2022
2	Dr. U. M. Lekhak	Faculty Development Programme on “INCUBATION, ENTREPRENEURSHIP AND INNOVATION	28/11/2022 to 04/12/2022
3	Dr. U. M. Lekhak	Two - Week Inter-Disciplinary Refresher Course On “ENVIRONMENT AND HUMAN HEALTH”	28/03/2022 to 11/04/2022

**Elphinstone College, Mumbai**

Sr.No.	Name of teachers	Title of the programme	Duration (From – To)
1	Bharat Raut	Refresher Course in Advanced Research Methodology	22.09.2022 to 06.10.2022
2	Nikita Thakare	Post promotion training organized by YASHADA, Pune	01-06-2023 to 07.06.2023

**Sydenham College, Mumbai**

Sr.No.	Name of teachers	Title of the programme	Duration (From – To)
1	Dr. Radhika Iyer (Seven Days FDP)	1) NEP 2020 2) Academic Administration	01/02/2023 – 07/02/2023 12/04/2023 – 18/04/2023
2	Dr. Jharna Kalra	1) Online Two-Day FDP on Budget   Digital Era Upscaling & Upskilling" 2) One-week FDP on "Academic Writing for Research" 3) Two-week Interdisciplinary Refresher Course on "MOOCS 26.0"	8 & 9th February 2023 15/02/2023-21/02/2023 8/05/2023-22/05/2023
3	Dr. Smita Kuntay	Online FDP on 'Advanced Pedagogical Techniques'	9th Jan to 15th Jan 2023.
4	Shri Rajendra Mali	Refresher Course in Economics (Online)	01/02/2023 to 15/02/2023
5	Smt. Vijaya Yeole	Online STC, Outcome Based Curriculum and Choice based Credit System	13/06/2022 to 16/06/2022
6	Dr Vijay Chawale	FDP on "Soft Skills for Teachers"	10/10/2022 to 16/10/2022
7	Dr. Ritesh Singhal	03 Faculty Development Program Under PMMMNMT	2022-23

### Secondary Training College, Mumbai

Sr.No.	Name of teachers	Title of the programme	Duration (From – To)
1	Mr.Sonawane sunil A.	Academic leadership	27/2/2023 to 3/3/2023

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

### Institute of Science, Mumbai

Particulars	Numbers
Awards	12
Patents	05

40. Details of Alumni Meet

### Institute of Science, Mumbai

The Institute of Science Mumbai Alumni Association (ISAA) 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 Executive Committee Meetings (ECM) of ISAA were conducted in a hybrid mode (online and offline) on the following dates:

1. ISAA EGM: 8th May 2022
2. ISAA EGM: 15th September 2022
3. ISAA EGM: 20th October 2022
4. ISAA EGM: 15th Feb 2023

The Annual Alumni Get-Together & Dinner took place on 10th December 2022. During the event, the Vidnyan Sanstha Ratna Awards were presented to four distinguished alumni: Dr. Adi Damania, Dr. Vasant Pusalkar, Dr. Surendra Manjrekar, and Shri. Prataprao Deshmukh. The gathering was attended by over 300 alumni, and the function was presided over by the Hon'ble Principal Secretary, Higher & Technical Education, Maharashtra State, Shri. Vikaschandra Rastogi, and Hon'ble Vice Chancellor Rajanish Kamat.

Several talks and lectures were organized in collaboration with the Department of Botany:

1. A talk on "Longevity and Anti-aging concepts with Ayurveda plants" by Dr. Ila Bhor was held on 20th October 2022.



2. An invited talk on "Role of Geoinformatics in conserving biodiversity & ecosystem services" by alumnus Dr. Gautam Talukdar, Scientist F, WH, Dehradun, took place on 13th Feb 2023.
3. A talk on "Food prices and the Doomsday Conservation of Crop Genetic Resources" by alumnus Dr. Ardeshir B. Damania from the Department of Plant Sciences, University of California, USA, was organized in collaboration with the Department of Botany on 15th February 2023.
4. The Institute of Science Alumni Association (ISAA), in collaboration with the Department of Botany, celebrated National Science Day by organizing a talk on "Scientific Treasures of Ancient India" by alumnus Prof. Sagarika Damle on 28th Feb 2023.

### **Elphinstone College, Mumbai**

#### **Alumni Meet - A Virtual Reunion Celebrating Connections**

In response to the requests made by our alumni for a virtual meet given their time and travel constraints, our college organized an alumni meet that transcended physical barriers by being held online. This virtual reunion provided a unique opportunity for former students to reconnect, reminisce, and celebrate their shared experiences, despite being geographically dispersed.

The meet was held on 11.02.2023 and was attended by 72 alumni. The online alumni meet aimed to achieve multiple objectives. Firstly, it aimed to foster a sense of belonging and pride among alumni by reinforcing their connection to the college and each other. By bringing together graduates from different years and fields of study, the event aimed to create a vibrant virtual community that transcended time and distance.

The success of the online alumni meet was evident through several key indicators. Firstly, the high turnout of alumni demonstrated their enthusiasm and willingness to reconnect with their alma mater. Positive feedback and testimonials from participants further validated the event's impact in rekindling the nostalgia and camaraderie among alumni.

Despite the virtual format, the alumni meet effectively fostered networking and collaboration. Alumni had the opportunity to exchange ideas, share experiences, and forge new professional connections. The event also facilitated mentoring relationships between alumni and current students, providing valuable guidance and insights for the next generation.

However, organizing an online alumni meet did present its share of challenges. Technical issues, such as connectivity problems and limited access to reliable internet connections, occasionally disrupted the smooth flow of the event. Ensuring comprehensive and efficient communication with alumni, especially regarding the event details and registration process, required a robust online platform and effective marketing strategies.

In conclusion, the online alumni meet successfully brought together former students in a virtual space, fostering a sense of community, nostalgia, and professional networking. By transcending physical barriers, the event celebrated alumni achievements, rekindled connections, and showcased the continued growth and impact of the college. As the world continues to navigate the challenges of the pandemic, online alumni meets offer an innovative way to maintain and strengthen the bond between the institution and its graduates.

#### **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 1200+ Alumni database on every 15<sup>th</sup> of each month. This streak of newsletter has been maintained and written by the members of the alumni cell.
- Alumni Talks’ session with **Mr. Sunil Gogia** which was held online on 23<sup>rd</sup> January, 2022 was hands down a wonderful experience for the students as he is a renowned spray paint artist
- Alumni Nexus – an event which was held in March 2023. It was graced by our alumnus Mr. Keki Mistry (vice-chairperson & CEO of HDFC), Mr. Vikas Chaudhury (Former President of Reliance Jio).

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

College had conducted Alumni meet on 24 October 2022 for B.Ed. batch 2019-20. After Secondary Training College Mumbai became a constituent college of Dr. Homi Baba State University Mumbai, it was the first Alumni Meet. In this meet with the spontaneous participation of students and a good relationship was established between the students and the faculty as well as the office staff.

#### 41. Details of ten Distinguished Alumni

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

Sr. No.	Name of the Alumni	Position	Contact No.	E-mail ID
1	B. N. Srikrishna	Former Judge, Supreme Court of India	9821221547	bsrikrishna@gmail.com
2	VidyaVencatesan	Professor of French, University of Mumbai	9820550910	vidya.vencatesan@gmail.com
3	Kanchana Mahadevan	Professor of Philosophy, University of Mumbai	9892303429	kanchmaha@yahoo.co.in

4	Jeronimo Pinto	Writer	9821731764	pintojerry@yahoo.com
5	Sangeeta Das Gangurde	RBI Economic Research Dept/ General Manager	9819994802	sangeeta.das.001@gmail.com
6	Tanisha Guin	Fellow at the Barefoot College International	9819994802	tanishaguin15@gmail.com
7	Jaison Abraham	Regional Senior Program Officer - Govt of Canada	0016478064200	jaison7@gmail.com
8	Arvind P Kudchadker	Professor Emeritus, IIT Bombay	09833518297	arvindk@echeguru.com
9	Yashwant Chavan	Filmmaker/Media Production/Head of Marketing,Promotions and Media @ MIT School of Film & Television	9371066737	<a href="mailto:yash98@hotmail.com">yash98@hotmail.com</a>
8	Rajan Khanuja	Officer in armed forces	9757296635	rajankhanuja@yahoo.com
9	Ajit Karnik	Professor of Economics	00971502722464	ajit.karnik@gmail.com
10	Priyanka Rane	HR Administrator, Dubai	588530677	priyankarane84@gmail.com

### Secondary Training College, Mumbai

Sr. No	Name of the Alumni	Position	Contact number	Email ID
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 Elphinstonecollege,Mumbai and Birla College,Kalyan on CHB	8108262227	Kalpesh91gayakwad@gmail.com
3	Mrr.Ganesh Shankar Ghatak	Assistant Professor, Satish Pradhan Dnyana Sadha college, Thane	9022479026	ganeshghatal12@gmail.com
4	Mr Rahul Ramchandra Patekar	Assistant teacher, Reliance foundation school, Lodhivali	8898628770	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, Sahya dri Shikshan Seva mandali College Naigaon(E)(NET Qualified)	77 099 07633	tamanip403@gmail.com

42. 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)

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

**Title:** Green Initiatives: Enhancing the Green Cover of Institute Campus

**Objectives:**

- To enhance the green cover of the institute campus through conscious efforts.
- To promote awareness among students about the importance of conservation and propagation of native medicinal plants.

**Context:** The focus of this initiative is to actively contribute to environmental conservation and raise awareness about the significance of native medicinal plants among students.

**Practice:** On the occasion of World Environment Day, which took place on 3rd June 2022, students and faculty members collaborated to plant a total of 1036 plants belonging to 86 different varieties. This planting activity aimed to improve the green cover of the campus. The initiative received support from Dr. Nair of Forest Creators and Ms. Madhu of IIFL Foundation, who assisted the institute under their GSR initiative.

**Evidence of Success:** The event saw active participation from 62 students. Through their involvement, students not only contributed to increasing the green cover but also gained valuable knowledge about the phytochemical constituents and pharmacological uses of the plants they planted. The garden attracted interest from students of nearby colleges, who visited to observe and learn from the initiative.

**Problems Encountered:** One of the challenges faced during the initiative was the task of watering the plants, especially during vacation periods when regular maintenance became difficult. This issue posed a hurdle in maintaining the well-being of the plants.

By actively engaging students and faculty members in planting activities, this green initiative successfully enhanced the environmental aesthetics of the institute campus. Furthermore, the initiative fostered a sense of environmental consciousness among the participants, while also creating a platform for the dissemination of knowledge about native medicinal plants. It is crucial to address challenges like maintaining plant care during vacation periods to ensure the sustained success of such green initiatives.

**Title:** Annual Research Scholars' Work Seminar: Fostering Knowledge Exchange and Professional Development



**Objectives:**

- To facilitate the gathering of faculty members, researchers, and students for the purpose of sharing their research work, knowledge, ideas, and expertise.
- To promote healthy research practices and create a platform for Research Scholars to showcase their work.
- To enhance the development of Research Scholars through exposure to new ideas, methodologies, and collaborative learning opportunities.

**Context:** The Annual Work Seminar for Research Scholars serves as a pivotal event to foster the exchange of ideas and promote professional growth among researchers within the Department of Botany.

**Practice:** On 9th January 2023, the Department of Botany organized the Annual Work Seminar for Research Scholars. This seminar served as a forum for Research Scholars to present their ongoing research projects and receive feedback and suggestions from external experts and fellow scholars.

**Evidence of Success:** The seminar witnessed the participation of 22 Research Scholars who presented their research work to an audience consisting of external experts and other researchers. The platform provided an opportunity for fruitful discussions, collaborative learning, and the sharing of insights. The comments and suggestions offered by the experts were integrated into the scholars' future work, contributing to the improvement and refinement of their research endeavors.

The seminar proved to be a valuable experience for the Research Scholars, as it facilitated the exchange of knowledge and ideas among researchers from various backgrounds. The event served as a catalyst for intellectual growth and professional development, allowing scholars to expand their perspectives, refine their research methodologies, and explore new avenues for investigation.

**Problems Encountered:** The seminar faced challenges related to space and time constraints, which

affected the organization and logistics of the event. However, despite these challenges, the seminar was successfully conducted, thanks to the collective efforts of the organizing committee and the enthusiasm of the participants.

By providing a platform for Research Scholars to present their work, engage in discussions, and receive expert feedback, the Annual Research Scholars' Work Seminar contributes to the overall advancement of knowledge in the field of botany. This event fosters a culture of intellectual exchange, encourages collaborative learning, and supports the professional growth of Research Scholars.

## **Elphinstone College, Mumbai**

### **Best Practice-I**

**Title of the Practice:** Departmental Library - Promoting Access to Books for Students

**Objective of the Practice:** The objective of the Departmental Library is to provide students with easy access to a wide range of books and resources related to their academic disciplines. By empowering students to manage the library themselves, the aim is to foster a culture of responsibility, leadership, and collaboration while promoting independent research and knowledge acquisition.

**Context:** In any educational institution, access to relevant study materials is crucial for students' intellectual growth and academic success. Recognizing this need, our college has implemented the Departmental Library practice, empowering students to take ownership of the library within their respective departments. This practice acknowledges that students can effectively manage and cater to the specific needs and interests of their peers, creating a more student-centric learning environment.

**The Practice:** The Departmental Library is a dedicated space within each department, managed by a team of student coordinators who act as librarians. These student librarians are selected based on their interest in the subject matter, organizational skills, and passion for promoting reading and research. They receive training and guidance from faculty members and college librarians to ensure effective management and operation of the library.

The student librarians curate and maintain a diverse collection of books, journals, research papers, and other relevant resources. They collaborate with faculty members and fellow students to identify areas of interest and acquire materials accordingly. Through regular feedback and surveys, the student librarians continually update and expand the library's collection to align with the evolving needs of the department's students.

**Evidence of Success:** The success of the Departmental Library practice managed by students can be observed through several key indicators. Firstly, there is increased student engagement with the library, demonstrated by higher borrowing rates and positive feedback regarding the collection and services offered. Students feel a sense of ownership and pride in their library, resulting in a more active and vibrant academic community within the department.

Furthermore, the student-managed library promotes peer-to-peer learning and collaboration. Students are more likely to seek assistance and recommendations from their peers, creating an environment of shared knowledge and support. The library also serves as a space for students to organize study groups, hold academic discussions, and collaborate on research projects, fostering a sense of camaraderie and intellectual exchange.

**Problems Encountered and Resources Required:** While the student-managed Departmental Library practice has proven successful, there may be some challenges to address. One potential issue is ensuring consistent availability and organization of resources. The student librarians must establish effective systems for cataloging, shelving, and maintaining the library collection to ensure easy access for all users. Additionally, adequate resources must be allocated to support the student librarians in their roles. This includes providing funding for acquiring new books and resources, as well as offering training opportunities to enhance their skills in library management, cataloging techniques, and research assistance.

**In summary,** the Departmental Library practice, managed by students themselves, empowers students to take ownership of their learning environment and promotes a culture of responsibility, leadership, and collaboration. By providing easy access to a wide range of resources, the library facilitates independent research, enhances the learning experience, and fosters a vibrant academic community within each department of the college.

## **Best Practice-II**

**Title of the Practice:** Student Exhibitions - Showcasing Creativity and Innovation

**Objective of the Practice:** The objective of organizing student exhibitions is to provide a platform for students to showcase their creativity, innovation, and talent across various disciplines. By encouraging students to present their work to a broader audience, this practice aims to foster self-confidence, develop presentation skills, and promote interdisciplinary collaboration.

**Context:** In an educational institution, it is essential to provide opportunities for students to showcase their skills and accomplishments beyond the classroom. Recognizing the importance of celebrating student achievements, our college has implemented the practice of organizing student exhibitions. These exhibitions serve as a catalyst for students to explore and express their ideas, encouraging them to think critically, experiment, and engage with their chosen fields of study.

**The Practice:** Student exhibitions are organized periodically within the college, providing a dedicated space for students to present their projects, research, artwork, prototypes, and other creative endeavors. The exhibitions are open to the college community, as well as external stakeholders, such as parents, industry professionals, and the wider public. They may be discipline-specific or interdisciplinary, depending on the nature of the projects and the goals of the exhibition. We look to organize the exhibition on February 28 each year, as the day is celebrated as National Science Day.

Students are encouraged to participate by submitting their work for consideration. A selection committee comprising faculty members and experts from relevant fields assesses the submissions and curates the exhibition to ensure a diverse range of projects are showcased. Once selected, students receive guidance and support from faculty mentors to refine their presentations and prepare their exhibits effectively. During the exhibition, students have the opportunity to present their work through various mediums, such as visual displays, oral presentations, demonstrations, performances, and interactive installations. They engage with visitors, explaining their ideas, methodologies, and findings.

**Evidence of Success:** The success of student exhibitions can be evaluated through several indicators. Firstly, the active participation of students, as evidenced by the number and quality of submissions, demonstrates the engagement and enthusiasm of students to showcase their work. Positive feedback from visitors, including faculty members, industry professionals, and the public, serves as evidence of the impact and value of the exhibition in promoting student talent and creativity.

Moreover, student exhibitions contribute to fostering a culture of interdisciplinary collaboration. By bringing together students from different departments and disciplines, the exhibitions create opportunities for students to exchange ideas, collaborate on projects, and gain insights from different perspectives. This interdisciplinary interaction encourages innovation and broadens students' understanding of their own field of study.

**Problems Encountered and Resources Required:** Organizing student exhibitions may present certain challenges. One common issue is managing logistics, including space allocation, and installation. Adequate resources, such as exhibition venues, display materials, technical equipment, and staffing, are required to ensure smooth operation and a high-quality exhibition experience.

Additionally, promoting the exhibitions and attracting a diverse audience can be a challenge. Effective communication and marketing strategies, including social media campaigns, posters, and invitations, are necessary to raise awareness and encourage attendance by the college community, external stakeholders, and the general public.

**In summary,** organizing student exhibitions serves as a best practice to celebrate and promote student creativity, innovation, and interdisciplinary collaboration. By providing a platform for students to showcase their work, these exhibitions foster self-confidence, develop presentation skills, and create a sense of pride and accomplishment within the college community. The success of student exhibitions is evident through active student participation, positive feedback from visitors, and the establishment of a vibrant culture of creativity and innovation in the institution.

## Sydenham College, Mumbai

### Best Practice-I

#### **Title: “Faculty Empowerment”**

##### **A) Goals:**

1. To plan collaborative practices to be implemented for empowering the teachers
2. To provide teachers with autonomy to explore and innovate to design an enriched curriculum.
3. To encourage teachers to participate in various Professional Development Programs.
4. To create opportunities for continuous and comprehensive learning thereby ensuring finest learning atmosphere to the students.
5. To cultivate team of future talented leaders.

##### **B) Context:**

Sydenham College endeavors to offer a conducive climate for professional development of the staff. Various faculty empowerment strategies are adopted for quality improvement that proves to be beneficial for the institute. Thus, cultivating a culture of constant learning helps the faculty to ensure consistent quality teaching in the classroom and provide best learning experiences to the student.

##### **C) Practice:**

1. Sydenham College has been recognized as the Faculty Development Centre under the PMMMNMTT, MHRD, New Delhi from August, 2018.
2. Ph.D. Research Centre in the subject of Business Policy and Administration and Business Management.
3. Faculties are the chairperson and members of various board of studies. The design innovative curriculum as per the needs of the industry.
4. Faculties are the member of Academic Council, University Office Bearers.
5. Faculty members act as a resource person in conferences, seminars and workshops.
6. Faculties are appointed as Government Nominee and subject expert for promotion of teachers under Career Advancement Scheme.
7. Various Welfare measures are provided to teaching staff as per the rules of Maharashtra Civil Service Rules 1981
8. Leave for academic pursuits, viz. Study leave, Sabbatical leave and Academic leave
9. Induction programs and post promotion training programs for faculties.

##### **D) Evidence of Success:**

Sydenham College has always been a catalytic leader in bringing about timely revolution in academic arena of the institution. This methodology has proven successful for embedding and sustaining transformation in the institution.

1. Faculties are chairperson and member of Board of Studies in Commerce & management, Accountancy, Business Economics, Business Communication, Business Law and Mathematics of Dr. Homi Bhabha State University and University of Mumbai
2. Dr. Radhika Iyer and Shri Rajendra Mali are the member of Academic Council of Dr. Homi Bhabha State University
3. 04 faculties from Commerce Department and 02 Faculties from Economics department are recognized PhD Guides.
4. Following faculties are given additional administrative charge

Sr. no	Name of the Faculty	Additional Charge
1	Dr. Khushpat Jain	<input type="checkbox"/> Director, State Institute of Administrative Careers, Mumbai
2	Dr. Shrinivas Dhure	<input type="checkbox"/> Director, Sydenham Institute of Management Studies, Research and Entrepreneurship Education <input type="checkbox"/> NSS Program Officer, HBSU
3	Dr. Anil Chougule	<input type="checkbox"/> Director, Department of Lifelong Learning and Education (DLLE, HBSU)
4	Dr. Radhika Iyer	<input type="checkbox"/> Assistant Finance and Accounts Officer, HBSU
5	Smt. Vijaya Yeole	<input type="checkbox"/> Director, Board of Examination and Evaluation, HBSU
6	Shri Unmesh Nangare	<input type="checkbox"/> Knowledge Director, HBSU
7	Dr. Anita Malage	<input type="checkbox"/> Director, Physical Education, HBSU

\* HBSU: Dr. Homi Bhabha State University

##### **D) Problems Encountered:**

- 1) Shouldering additional responsibilities by the faculty sometimes affect their regular college work
- 2) Long and stressful working hours lead to adverse mental well-being of the faculty.

## **Best Practices - II**

### **Title: “Sydenham Outreach Program (SOP) – Reaching the Unreached”**

#### **A) Goals:**

1. To sensitize students towards their duties and responsibilities towards the community
2. To establish a partnership between the society and the institute.
3. To undertake various welfare programs that promotes civic engagement, reciprocity and compassion to the needs of the society
4. To join hands with NGOs to initiate community outreach activities.
5. To bring social revolution thereby contributing towards development of the nation.

#### **B) Context:**

As an educational institution, it is the prime objective to bring about social reforms which will lay concrete base for the development of the nation. Sydenham College is always committed in building long term partnership with community by organizing various activities through its NSS/SSL unit where students undertake various activities and participate in collective work for societal advancement. This provides opportunities to students to serve the society from the grass root level thus bringing about social development.

#### **C) Practice:**

1. The NSS unit of Sydenham College provides platform to the students to undertake various community service activities and bestow betterment of humanity. Variety of social service activities are undertaken every year thereby channelizing the students vigour towards service to the mankind.
2. The College also has Social Service League unit which undertakes social activities within the college. Both NSS and SSL unit works in close co-ordination with each other and organized different programs for social welfare.

#### **D) Evidence of Success**

Even when the entire universe was struggling with Covid-19 Pandemic, our NSS unit left no stone unturned in contributing towards the society. Following activities were organized by the NSS unit of the college in the Academic Year 2021-2022

- Two Covid-19 Vaccination drive was conducted in the college on 06/02/2022 and 22/03/2022
- Session on marine pollution was conducted in collaboration with United Way Mumbai
- Seed ball distribution drive was conducted in collaboration with Ashwas Foundation
- Tree plantation drive was conducted under Majhi Vasundara Campaign
- Beach Clean Up drive was conducted in association with United Way Mumbai
- Organ donation awareness was conducted in collaboration with Mohan foundation
- Street play on social cause was done by students with the sole intention of disseminating and spreading awareness among the people and bring about radical positive change in the mindset of the society.
- Mental Health Campaign was organized to educate people about their mental health and strategies to cope with it better.

#### **E) Problems Encountered:**

- Outreach Programs do not get required support and co-operation from the people who are going to benefitted by it.
- Vaccination hesitancy, negative attitude and unwillingness to vaccinate posed a problem during vaccination drive.
- Complex task to change the mind-set of the people in undertaking any activities for social cause.

## **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.
- To inculcate of values and life skills in students
- Students get information about various special days.
- To celebrate various special days and activities

#### **Context**

- Birth anniversary
- Jayanti (जयंती)

- Spatha (week)
- Bhasha pandhrwada (भाषापंधरवाडा)
- special day (दिनविशेष)

#### Practice

- Rangoli competition
- Oratorical competition
- Essay writing competition
- Poetry reading competition
- Poster making competition

#### Problems encountered

- No of staff less
- Financial

#### Resources required-

- Internet
- Sufficient staff
- Financial support

#### Evidence of success –

### Rangoli Competition



### मराठी भाषा संवर्धन सप्ताह

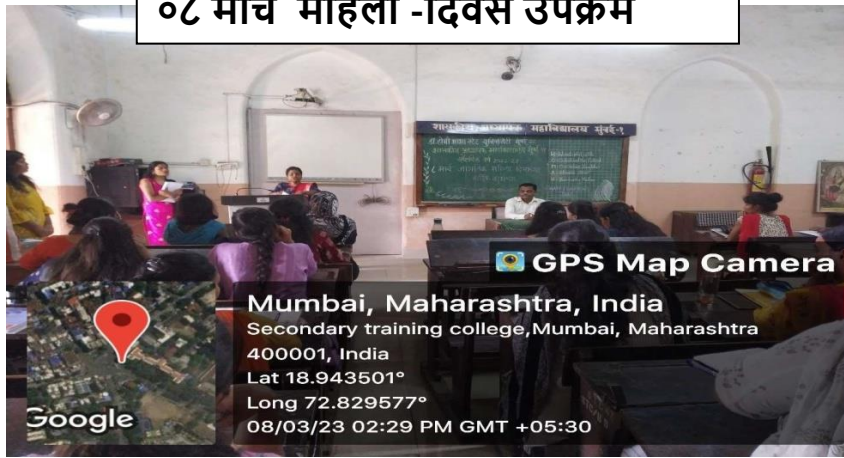




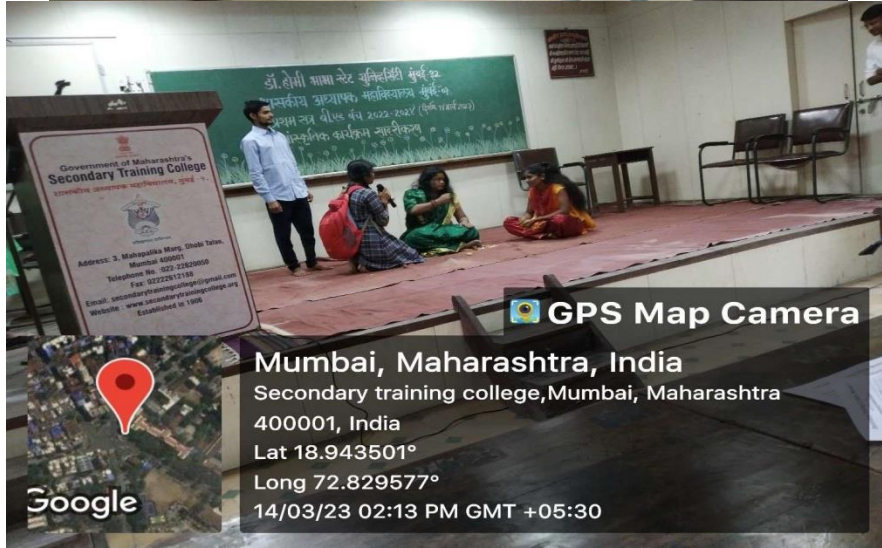
शांतिवन नेरे, समाजसेवा उपक्रम अंधश्रद्धा - निर्मूलन व्याख्यान व प्रात्यक्षिके



०८ मार्च महिला -दिवस उपक्रम



## सांस्कृतिक कार्यक्रम-सन २०२२-२३



## कार्यक्रम महात्मा -ज्योतिबा फुले जयंती





#### 43. Achievement and Unique features of the department

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

###### Biotechnology

- Started with Post Graduation programs

###### Zoology

- Started research center for PhD in zoology

###### Microbiology:

- Establishment of student unit of microbiologist society of India
- Conducted online awareness about COVID-19 amongst university staff and common man by conducting webinars & quizzes.
- Microbiology Literacy program initiated to create awareness about the subject/field amongst school students.
- Microbioolympiad -students actively participate in the national level event on essay, quiz, poster making etc

###### History:

- One-week Certificate course on Museology & Archival Science in collaboration with Heritage Foundation, Hyderabad -Feb 202

###### Psychology:

- Started departmental library
- Three-day workshop on “Skills in Counselling and Psychotherapy” by professional counsellors was organized
- A visit to a special school was organized

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

Unique feature: Sydenham College believes in holistic development of the students. For this college focuses on Experiential Learning. This is quite evident from the fact that college has 22 STUDENT MANAGED SOCIETIES, which gives them hands on training and practical exposure to the subjects they learn. This builds creativity and confidence in students.

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

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

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

**Institute of Science, Mumbai**

**Awareness Program:** The department places great importance on educating students and staff about sustainability and the crucial role that plants and ecosystems play in maintaining a healthy environment. To achieve this, the department organizes a series of invited talks, workshops, and other educational activities. These initiatives aim to increase awareness and understanding of sustainability-related issues, such as climate change, biodiversity conservation, and ecosystem services. By fostering knowledge and consciousness among the institute's community, the department strives to inspire individuals to make environmentally responsible choices in their daily lives.

**Planting Trees and Green Spaces:** In an effort to enhance the ecological integrity of the campus, the department actively engages in tree planting initiatives and the creation of green spaces. By strategically planting trees and other greenery around its buildings and campus, the department not only improves the aesthetics but also contributes to improving air quality and mitigating the impacts of urbanization. Additionally, these green spaces serve as a valuable resource for research students studying medicinal plants, as they provide a fresh and easily accessible source of plant materials for their studies.

**Composting:** The department has implemented a composting system to manage organic waste generated within the institute, including plant trimmings, leaves, and wet garbage from the canteen. Composting is an environmentally friendly practice that diverts organic waste from landfills, reducing the burden on waste management systems. The resulting compost serves as a natural fertilizer that enriches the soil and supports the growth of plants in gardens and green spaces across the campus. This closed-loop system promotes sustainability by recycling organic waste and nurturing the soil, contributing to a more sustainable and self-sufficient environment.

**Encouraging Sustainable Practices:** The department actively promotes and encourages sustainable practices among students, staff, and the wider institute community. This includes initiatives aimed at reducing the use of plastic, promoting recycling, and conserving water and energy. By advocating for the reduction of single-use plastic items, implementing recycling bins and education programs, and promoting water and energy conservation measures, the department fosters a culture of sustainability. Through these efforts, the department empowers individuals to adopt environmentally conscious behaviors and make a positive impact on the environment.

Through its multifaceted approach, the department endeavors to create a culture of sustainability within the institute. By raising awareness, promoting green spaces, implementing composting practices, and encouraging sustainable behaviors, the department strives to contribute to a healthier and more environmentally responsible campus community

**Elphinstone College, Mumbai**

- **Microbiology:** Creating a platform for the students to carry out small research projects based on the curriculum.
- **Hindi:** In the era of new edge, Hindi Department is upgrading the knowledge of specific Hindi language and literature with its importance of cultural, social and nationwide broad vision towards world. Hindi Department is uptodate with research based scientific and technosavy approach in its teaching methods.
- **Psychology:** Hand-holding practices by senior (TYBA) students. Mentorship, focused group discussions, and support outside the classroom is provided by the seniors. Senior students prepare learning material as part of their internal evaluation and pass it on to teachers and junior students.
- **History:** Rare Subject for the TY students in History - Evolution of Journalism and intellectual Discourse in Modern India.
- **Zoology:** Expertise in taxonomy

**Sydenham College, Mumbai**

**Institutional Distinctiveness**

**Autonomy – Redefining Academic Excellence**

**Preamble:**

The higher education scenario in India is undergoing a great transformation from state patronized institutions offering traditional courses with limited choice to highly diversified self-sustaining globally competitive system of education. Keeping pace with these changes, the Sydenham College has become

Constituent College of the first cluster University established in the state of Maharashtra and third in the country in the year 2019. As a constituent college of a small cluster university, it has autonomy in designing curriculum keeping in mind the global employability level.

In align with the mission and vision of providing comprehensive education, the institute has a meticulous educational pattern which will benefit all the stakeholders. Let's take a glance at benefits of being the part of Cluster University:

**1) Academic Autonomy:**

Catering to Commerce and Management faculties, the college has autonomy to design the curriculum and customize it as the changing needs of the industry. The college has different Board of Studies with members from academic and industry, thereby facilitating syllabus framing with a broader perspective that will prove beneficial to the students.

**2) Transparent Admission Procedure:**

The admission procedure adopted is simple, easy and student friendly. Admission are done as per the guidelines issued by the university through LMS portal. All the details regarding admission are displayed in college website and notice board thereby assisting students in all possible manner.

**3) Timely Result Declaration:**

Being the part of Cluster University, the examinations are conducted in timely and precise manner which facilitate timely declaration of result.

**4) Cafeteria Approach:**

The college adopts cafeteria approach that enables students to choose subjects from variety of specialisation offered to them. This flexibility allows students to explore their interest and generate a basket of desired subjects

**5) Wider Choice of Subjects and electives**

One of the important highlighting feature of Sydenham College is that we offer wider choice of subjects and elective to the students. This allows students to pick a subjects of his choice that will assist him in his future career.

**6) Experienced Faculties:**

The colleges being the part of Cluster University, has a team of experienced and dedicated teachers along with excellent infrastructure which will assist the student in accomplishing their dream of higher education from a reputed educational institute.

Being the part of Homi Bhabha State University, enables horizontal and vertical movement to students across all courses and colleges, thus offering them extensive outlook towards education. Thus the Sydenham as a constituent college of Dr. Homi Bhabha State University, is a leap in the direction of broad objectives of the New Education Policy, 2020 announced by the HRD Ministry.



**Placement Details:**

Companies Visited: 190

Students Placed: 148

Highest Package: Rs. 9,00,000

Names of the Company (Few Names have been listed)

- a. Trident Hotels
- b. KPMG
- c. IndusInd Bank
- d. Deloitte
- e. Max Life
- f. Axis Bank
- g. Asset Vantage

- h. Godrej
- i. Gozoop
- j. Motilal Oswal

**Memorandum of Understanding Signed During the year (MoU)**

Sr. No.	Name of the company	Purpose
1	Bombay Stock Exchange	BBA (Banking and Financial Analytics) Undergraduate Degree Program
2	Ironwood Sports Management and Global Academy	Bachelor in Sports Management Program
3	IDBI	07 days Training Workshop on BFSI Sector
4	Greenzup Grow Private Limited	Garden Redevelopment and Beautification
5	Aptech Ltd.	Offering Tally and Computer Related Courses to students at discounted fees.

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

**Institute of Science, Mumbai**

**Strengths:**

- **Strong and Knowledgeable Faculty:** The department boasts a team of faculty members who possess expertise in their respective research areas. Their passion for research drives the academic environment and promotes knowledge dissemination.
- **Well-equipped Research Labs:** The department maintains well-equipped laboratories that provide the necessary infrastructure for conducting cutting-edge research. These labs support the faculty and students in their research endeavors.
- **Good Students/PhD Scholars:** The department attracts talented and dedicated students and PhD scholars who contribute to the research output and academic excellence. Their enthusiasm and commitment enhance the overall research environment.
- **Interdisciplinary Collaborations:** The department actively engages in interdisciplinary collaborations with other departments within the institute and external institutions. These collaborations foster the exchange of ideas, promote cross-disciplinary research, and encourage innovation.
- **Medicinal Plants Garden:** The presence of a medicinal plants garden provides a valuable resource for research and learning. It offers opportunities for the study and exploration of medicinal plants, facilitating hands-on experiences and practical application of knowledge.

**Weaknesses:**

- **Limited Funding for Research:** The department faces challenges in securing sufficient funding for research activities. Limited financial resources restrict the scope and scale of research projects and the acquisition of necessary equipment and supplies.
- **Vacant Faculty Positions:** The department experiences vacant faculty positions, which places a higher workload on existing faculty members. The absence of sufficient faculty members can affect teaching and research activities.
- **No Lab Attendant:** The absence of a dedicated lab attendant may add to the workload of faculty members and impact the efficiency of laboratory operations, including maintenance and organization.
- **No Field Collector:** The lack of a designated field collector poses challenges in conducting fieldwork and collecting samples, which are essential for certain research projects and studies.

**Opportunities:**

- **Expansion of Interdisciplinary Collaborations and Partnerships:** The department has the potential to forge additional interdisciplinary collaborations and partnerships with other departments, research institutes, and industry stakeholders. Such collaborations can broaden the research scope, foster innovation, and facilitate the exchange of expertise and resources.
- **Increased Funding Opportunities:** By actively seeking grants and establishing strategic

partnerships, the department can enhance its funding opportunities for research projects. Collaborating with industry, government agencies, and non-profit organizations can provide access to additional resources and funding streams.

- **Expansion of Course Offerings and Curriculum Diversity:** The department can explore opportunities to expand its course offerings, introducing new subjects and areas of study. This expansion can enhance the diversity of the curriculum, attracting a broader range of students and catering to emerging research trends and demands.

#### **Challenges:**

- **Limited Resources for Research and Facilities:** The department faces challenges due to limited resources for conducting research and maintaining facilities. Insufficient funding restricts the acquisition of advanced equipment, upgrades to infrastructure, and the overall support required for research activities.
- **Addressing the weaknesses, capitalizing on the opportunities, and tackling the challenges will require strategic planning, resource mobilization, and proactive measures.** By leveraging the strengths and mitigating weaknesses, the department can strive towards excellence, promoting impactful research and fostering a conducive learning environment for students and faculty.

### **Elphinstone College, Mumbai**

#### **STRENGTHS:**

- **Luminous History of Excellence:**  
Elphinstone College is one of the premier institutions in the field of higher education in the country established before the University of Mumbai, to which it was later on affiliated. The list of alumni nurtured by the College testifies the commitment of the College towards excellence in the field of higher education. Over the past 160 years, Elphinstone College has established itself as an institution of learning to reckon with, both within and outside the country. To quote, Prof. Muller, —It was impossible to be great in India without being an Elphinstonian!
- **Cluster University**  
Elphinstone College is now a constituent college of Dr. Homi Bhabha State University, which was established in 2019. This has given the college flexibility to devise, execute and evaluate its own programmes. We now have our own Board of Studies and Academic Council. Many new programmes have been started, including the PhD programme, and MoUs made with leading institutions like the Bombay Stock Exchange, Mumbai. We are implementing the New Education Policy (NEP) 2020 from the coming academic year and will be offering an honours degree in all undergraduate programmes.
- **Supportive Alumni:**  
The Elphinstonian Society, the alumni association of the College plays a supportive role in a variety of ways. Some alumni have donated their personal libraries to the College. The College has set up an independent section of books authored by the illustrious past students, beginning with none other than Dadabhai Naoroji. Some have contributed generously for mega events such as the first International conference held in the College in 2007. Mr. Kunal Ganjawala, famous Hindi play back singer, and an alumnus has donated collection of a live concert for the use of the College. Alumni also contribute in the mentoring process by providing money to the deserving and needy students. Together, the alumni have organized various programmes including guest lectures, workshops etc under the banner of Centre for Excellence.
- **Location and Grade I Heritage Structure:**  
The college has an enviable location. It is in the midst of several internationally known institutions that engage in enriching the urban sensitivities of citizens. They include the Museum, Bombay Natural History Society, Max Muller Bhavan, Alliance de Francoise, National Gallery of Modern Art, Jehangir Art Gallery, David Sassoon Library, the RBI, the BSE and many others. The teachers and students have gained immeasurably in this neighborhood.  
The building of the College with its gothic architecture has been classified as a Grade I Heritage structure. It has been restored by the Kala Ghoda Association and the college has regained its grandeur. The Elphinstone College was awarded Asia-Pacific Heritage Award for Culture Heritage Conservation, in 2004 by UNESCO for the one of the best Heritage buildings restored.
- **Students' Hostels:**  
Elphinstone is one of the few Colleges in Mumbai with hostel facility for both boys and girls in the govt. hostel. Located within a walking range from the College and overlooking the marine Drive, the hostel is certainly among the unique strengths of the College. It has also been a facilitator that binds the alumni together with the fond memories of their student days!
- **Government Institution:**

As the government institution the College avails funds from DPC and State Plan, apart from UGC. The staff is recruited after a keen scrutiny by the Maharashtra Public Service Commission. Further, in recent times new recruits are trained at the prestigious YASHADA. (Yeshwantrao Chavan Academy of Development Administration) Pune.

#### **WEAKNESSES:**

Every area of strength leaves a shadow of weakness. Most of the limitations faced by the College thus arise from the strength, itself. They are:

- **Space crunch:**  
Being located in the heart of the business district of Mumbai, space crunch is a major problem of the College. Many departments of the College have had to be accommodated in the neighboring buildings of N.C.C.
- **Constraints in Renovation:**  
As in the case of any class I Heritage structure, the maintenance of the building is an onerous task. It is usually a long-drawn process and has to be done with utmost care and sensitivity. The exterior of the building has been recently restored, but the civil and electric work has been under process, which is also rather laborious given the high ceilings. Besides, major renovation of any kind is nearly impossible.
- **Transferable Jobs:**  
Elphinstone College can boast of galaxy of stalwarts in the teaching staff. However, since the staff is transferrable, it is not possible to ensure that they are retained here throughout their tenure. Also, recruitment through proper procedure takes its own time, leaving a number of vacancies unfilled. However, with its reputation the College is able to attract highly qualified and dedicated persons for teaching even on a clock-hour basis.

#### **OPPORTUNITY:**

- **Networking with the Institutions in the Neighbourhood:**  
College has gained significantly from the institutions in the neighbourhood. Various cocurricular activities within the College are planned regularly in collaboration with these institutions.
- **New Initiatives in the Cluster University:**  
The cluster university provides huge opportunities in starting new programmes, making our syllabus and courses modern, relevant, field-oriented, and continuously updated. We have the liberty to start new programmes and undertake new initiatives with minimum administrative red-tape.

#### **CHALLENGES:**

- **High Institutional Density:**  
The College is located in close vicinity of several Higher Education Institutions. This creates keen competition in attracting students. However, it also reiterates the strength of the College to note that so many students from other colleges wish to enroll here at the degree level.
- **Deceleration in The Interest for Pure Academic Pursuit in the Wider Society:**  
Today there is a clamour for job-orientation. While it is essential to earn a living, overemphasis on mere employability has been stifling the passion for pure academics. Over the years this has affected the number of admissions in pure sciences in general.

### **Sydenham College, Mumbai**

#### **STRENGTHS**

- Secure and compassionate learning environment.
- Diverse societies which foster overall personality development of the students.
- Introduction of Two new Degree Program
- Novel application of digital technology in teaching
- Placement in Reputed companies of national and international repute.

#### **WEAKNESS:**

- Lag in appointing regular faculty.

#### **OPPORTUNITIES:**

- Being the part of cluster University (HBSU), there is numerous opportunities to start new programs as per the needs of the industry
- Collaborative programs along with alumni
- Promote academic exchange, collaborative research, curricular modernization, cross disciplinary

teaching

- Academia-Industry Linkage
- Promotion of Community Service Activities in tribal and rural areas.

**THREATS:**

1. Transition from Online teaching learning to offline learning has changed the attitude of the students
2. Multi focus attitude of the students erodes specialisation in any one activity.

**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 Baba State University Mumbai.
- The college has got a spacious building which comes under historical heritage building.
- A large and well-stocked library of the college provides library and information services to the students.
- A fully equipped computer training ICT lab is being set up in the college
- As our college is being a government college, abundant educational facilities are available to the backward class students. Therefore, the strength of backward class students is more.

**Weakness**

- No. of faculties are less as per in NCTE norms 2014.
- The library is still not computerized
- No. of peons and housekeeping servants are less.
- Due to the late admission process, it is difficult to give adequate justice to the B.Ed. course.

**Opportunities**

- The college is now recognized as a constituent college of Dr. Homi Baba State University Mumbai and the college will now promote various academic courses.
- our college being a constituent college of university so it will get opportunity of arranging teacher training programs.
- Opportunity to do university level research activities.

**Challenges**

- More and hard workload on less no. of teaching faculties.
- More workload on less no. of non-teaching faculties.
- How to complete the syllabus in short span of working day with less No. of teaching faculty.
- It is difficult to complete exams in semester system in time.
- At the university and college level faculty to participate in various tasks/activities and complete them in time is also difficult.

46. Plan of action for the next academic year.

**Institute of Science, Mumbai**

**Micropropagation of Medicinal Plants:**

The institute places significant emphasis on the micropropagation of medicinal plants as a core research area. This research focuses on the development and application of tissue culture techniques to produce large quantities of valuable medicinal plant species. By employing aseptic culture methods, the institute aims to conserve and propagate these plants, ensuring their sustainable availability for various medicinal and therapeutic purposes.

**Organization of Research Scholars Meet in the Institute:**

To foster a collaborative and intellectually stimulating research environment, the institute organizes regular Research Scholars Meets. These meetings serve as a platform for research scholars from various disciplines to present their work, exchange ideas, receive constructive feedback, and engage in interdisciplinary discussions. These gatherings not only facilitate knowledge sharing but also encourage networking, collaboration, and the exploration of new research avenues.

**Organization of Instrumentation Workshop:**

Recognizing the importance of hands-on training and skill development, the institute conducts instrumentation workshops. These workshops provide researchers, students, and faculty members with opportunities to learn about the operation, calibration, and application of advanced scientific instruments and equipment. By enhancing technical expertise, these workshops empower participants to utilize sophisticated instrumentation effectively in their research projects and experiments.

#### Organization of Internship Program:

The institute offers an internship program designed to provide students with practical exposure and real-world experience in their respective fields. Through collaborations with industry partners, research institutes, and organizations, students have the opportunity to work on research projects, gain hands-on skills, and apply their theoretical knowledge in practical settings. These internships enhance students' employability, nurture professional networks, and foster a deeper understanding of their chosen field of study.

#### Organization of Invited Talks by Eminent Personalities:

To enrich the academic environment and inspire intellectual growth, the institute organizes invited talks by eminent personalities from academia, industry, and related fields. These talks expose students, researchers, and faculty members to a wide range of perspectives, cutting-edge research findings, industry trends, and success stories. By engaging with renowned experts, participants gain valuable insights, broaden their knowledge base, and stay updated on the latest developments in their respective disciplines.





### Organizing Long Excursions/Industrial Visits:

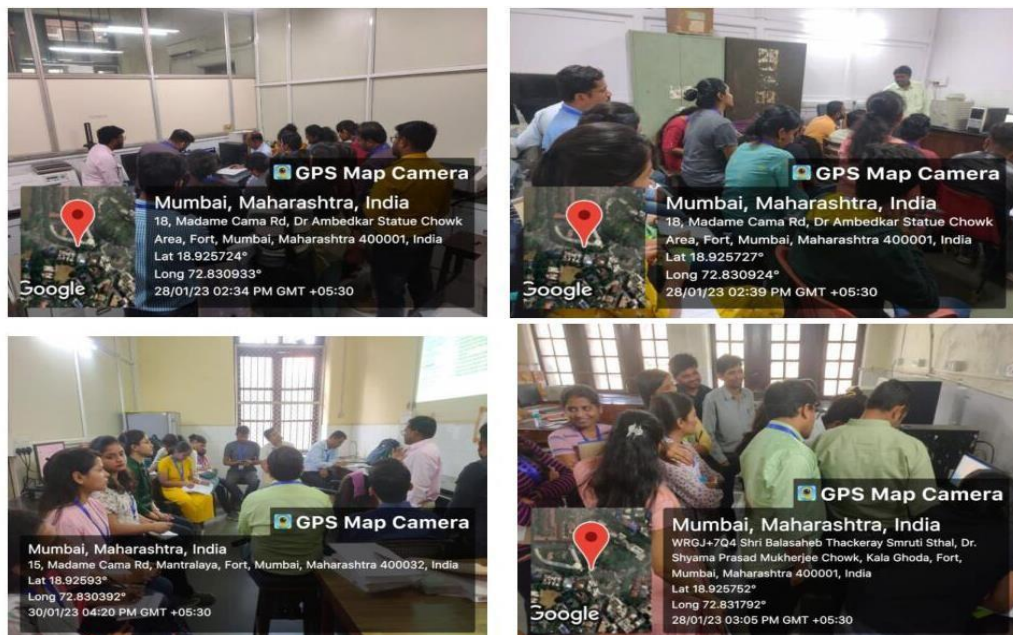
The institute arranges long excursions and industrial visits to provide students with practical exposure beyond the confines of the classroom. These visits offer firsthand experiences of industrial processes, research facilities, and real-world applications of theoretical concepts. By observing industry best practices, students gain valuable insights, develop a deeper understanding of their field, and cultivate industry-relevant skills that enhance their employability.





**Organization of NET/SET Workshops:**

In order to prepare students for national-level eligibility tests, such as the National Eligibility Test (NET) and State Eligibility Test (SET), the institute organizes specialized workshops. These workshops focus on exam-specific preparation strategies, covering relevant syllabus topics, providing study materials, and offering guidance on exam patterns and question-solving techniques. The workshops aim to equip students with the necessary skills, knowledge, and confidence to excel in these competitive examinations, opening doors for their future academic and research pursuits.





By actively organizing these initiatives, the institute demonstrates its commitment to promoting research excellence, practical skill development, interdisciplinary collaboration, and holistic growth of students, researchers, and faculty members. These efforts contribute to fostering a dynamic academic environment, nurturing innovation, and establishing the institute as a hub for cutting-edge research and

knowledge dissemination in the field of medicinal plants and related areas.

### **Elphinstone College, Mumbai**

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

- Smart classrooms equipped with cutting-edge technology and high-speed internet
- Purchasing latest equipment for laboratories
- Renovation of classrooms and laboratories
- Implementing the New Education Policy (2020) successfully and efficiently
- Appointing a regular counsellor for student counselling

### **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 organize workshops seminar for the benefit of the student.
- To collaborate with industry and educational institute for introducing new skill based courses, training programs etc.
- To empower faculty by encouraging them to participate in knowledge enrichment training programs
- 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**

- Arranging workshop for students and faculty development
- Increase the number of teaching faculty
- Increasing number of non-teaching staff