



सत्यमेव जयते

Government of Maharashtra

Institutional Development Plan (2023-2033)

DR. HOMI BHABHA STATE UNIVERSITY, MUMBAI



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Foreword:

We are pleased to present the Institutional Development Plan (IDP) for Dr. Homi Bhabha State University, Mumbai, outlining our strategic vision for the period 2023-2033. This comprehensive plan is a reflection of our unwavering commitment to fostering inclusive, equitable, and high-quality education, aligned with the transformative goals of the National Education Policy (NEP) 2020.

Guided by the principles enshrined in the NEP 2020, this IDP lays out a structured roadmap for leveraging resources to enhance educational infrastructure, advance technological capabilities, and create a dynamic learning environment for both students and educators. Our focus is to build a resilient and forward-looking academic ecosystem that nurtures talent, fosters innovation, and empowers individuals to reach their fullest potential.

The decade-long plan emphasizes strategic investments in key areas, including the modernization of classrooms and laboratories, integration of cutting-edge pedagogical methods, and expansion of digital learning platforms. By adopting a holistic approach to education, we aim to bridge systemic gaps, address existing challenges, and pave the way for a future-ready, multidisciplinary education model.

A core aspect of our vision is the promotion of research, innovation, and entrepreneurship, ensuring that our students are equipped not only with academic knowledge but also with the critical thinking and problem-solving skills necessary to excel in a rapidly evolving global landscape. We will work tirelessly to strengthen industry-academia partnerships, facilitate skill development programs, and foster an entrepreneurial spirit within our university community.

Furthermore, this IDP underscores our steadfast resolve to uphold the values of inclusivity and accessibility. Special attention will be given to creating equitable opportunities for all learners, promoting diversity, and cultivating an academic culture that respects and celebrates varied perspectives.

As we embark on this ambitious journey, we extend our sincere gratitude to the Ministry of Education, the Maharashtra State Faculty Development Academy (MSFDA), and all our partners and stakeholders who have supported and guided us. Their valuable insights and continued collaboration will be instrumental in the successful implementation of this plan.

Together, let us move forward with purpose and determination, united by a shared commitment to educational excellence and innovation. By embracing the transformative spirit of the NEP 2020 and the forward-thinking goals set forth in this IDP, we are confident that Dr. Homi Bhabha State University will emerge as a beacon of learning, leadership, and societal impact.

Dr. Rajanish Kamat
Vice-Chancellor

1. Profile of Dr. Homi Bhabha State University (HBSU)

The Government of Maharashtra has established the Dr. Homi Bhabha State University, as a Cluster University in 2019, with the Institute of Science, Mumbai; Elphinstone College, Mumbai; Sydenham College, Mumbai; Secondary Training College, Mumbai; Institute of Forensic Science, Mumbai; and Sydenham Institute of Management Studies, Research and Entrepreneurship Education, Mumbai as the Constituent Colleges. The Institute of Science, Mumbai is the Lead Institute of the University. All the colleges are more than 100 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). The establishment of this University is expected to charge the Higher Education system in the State with new vigour. It will lead to optimum use of resources of the constituent colleges and will offer the learners wide options of learning with flexibility and assist them with student-friendly support system. It will generate contemporary and relevant infrastructure and provide undergraduate and postgraduate programmes in diverse disciplines under choice based credit system (CBCS). The CBCS will adopt a cafeteria approach, where the students will be given freedom to select some courses from an array of courses as per their preferences. The students may take some of the courses across the constituent colleges. The programmes will be dynamic and demand driven. The students may participate in various activities organized by the constituent colleges.

• University Snapshot: At a Glance

A.	Name of the University	: Dr. Homi Bhabha State University, Mumbai
B.	Address of the University	: 15, Madame Cama Road, Mumbai-400 032
C.	AISHE Code	: U-1076
D.	Name of the District	: MUMBAI
E.	Is the district of the University location a focus district	: No
F.	Whether State Government University	: Yes
G.	Year of opening	: 2019
H.	Is the University running from a permanent campus or temporary campus:	: Yes
I.	Accreditation status as on date of application	: Accredited/Not accredited
J.	Accreditation score and Grade	: Not Applicable (New University)
K.	Date of validity of accreditation	: Not Applicable
L.	NIRF (2023) Ranking of the University (in the category of Universities)	: Not yet eligible

M. Contact details for the institute:

Key Officials	Name	Phone	Mobile	E-Mail
Vice Chancellor	Prof. Rajanish Kamat	2235136751	88508 60800	vc.drhbsu@gmail.com vc@hbsu.ac.in
Registrar	Prof. Vilas Padhye	2235136751	99233 94967	reghbsu@gmail.com reg@hbsu.ac.in pmusha.hbsu@gmail.com
IQAC Coordinator	Dr. Vishal Banewar	22351 36751	9421743 003	banewar@iscm.ac.in banewar@gmail.com
Financial & Accounts Officer	Shri. Madhav Nagargoje	2235136751	97673 57745	faohbsu@gmail.com fao@hbsu.ac.in

Features of the HBSU

1. Inherent Multidisciplinary Education and Research University (MERU) Structure of Dr. Homi Bhabha State University, Mumbai
2. Being the University of Cluster of only four constituent colleges, which are geographically in proximity, the University is managed and administered much more efficiently
3. All the constituent colleges are accredited by Grade 'A' by the NAAC.
4. All the colleges are elite colleges, are in existence for a long time, and with heritage mark.
5. The colleges are Government Colleges and hence the fee structure is regulated and reasonable.
6. The students are trained under Choice Based Credit System (CBCS) and offered subjects in a cafeteria mode.
7. The students studying any core subject is allowed to take additional credits across the disciplines so as to enrich his learning experience.
8. Constituent colleges elite HEIs, in existence for more than 100 years, & with heritage mark
9. Focus on Skills, Industry Partnership, CBCS, Internship, Training & Placement of the students
10. Efficient, Timely Examination and Evaluation Process
11. Rich Legacy with prominent Alumni network

Vision Mission of HBSU

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:

- In the cadence of our mission, echoes the promise of superior education, kindling critical minds, fostering communication, collaboration, and creativity, sparking pioneering research for societal change.
- Our aim is to arm our students with essential skills, knowledge, and values to uplift humanity.
- Within our inclusive, diverse haven, we cultivate personal growth, teamwork, ethics, and leadership, harmonizing with the melody of advancement.

MOTTO

विश्वविद्यालयः बौद्धिकसंस्कृतेः प्रेरणास्रोतः अस्ति

(University always pioneers intellectual and scholarly pursuits)

विश्वविद्यालय बौद्धिक संस्कृति का प्रेरणास्रोत है।

Broad objectives of HBSU

- To provide instructions, teaching and training in scholarly disciplines and make provisions for research, innovation advancement and dissemination of knowledge.
- To create higher levels of intellectual and innovative abilities.
- To establish state of the art facilities for education and research.
- To create centers of excellence to enhance the employability as well as scholarly pursuits of knowledge
- To provide consultancy to the industry, government and private organizations.
- To establish new courses institutions and curricula as per the need of the community.
- To establish new skills-oriented courses as per the need of the industry and corporate sector.
- To award degrees, diplomas, certificates and other academic distinctions on the basis of examination or any other method of evaluation.
- To maintains standards of the degrees, diplomas, certificate and other academic distinctions in accordance with the norms laid down by UGC and related Regulatory Bodies or Councils.
- To collaborate with other Universities, Research Institutions, Government and Non-Government organization
- To provide meaningful learning opportunities to students of India and overseas.
- To set up collaborative provisions with foreign/international Universities

- **Constituent Colleges**

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 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.

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.

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 the 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 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. It is recognized as the faculty development centre by the MHRD, New Delhi, in 2018.

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.Ed., The vision of the college is to prepare excellent teachers through capacity-building training. The college has a well-equipped library, ultra-modern computer laboratory, and educational technology cell.

INSTITUTE OF FORENSIC SCIENCE, MUMBAI

The Institute of Forensic Science was established in 2009 by the Department of Higher and Technical Education of the State Government of Maharashtra, with the aim of creating a world-class curriculum in the field of Forensic Science to educate and train young minds to counter the rising crime scenario in the country.

The institute offers several courses including, BSc in Forensic Science, MSc in Forensic Science with specialisations in Forensic Serology and DNA Analysis, Toxicology, Ballistics, and Digital and Cyber Forensics, as well as Post Graduate Diploma courses in Forensic Science and Cyber Forensics. In the due course of time, the institute also aspires to be starting a number of short-term courses for professionals in a variety of forensically essential subjects, such as Questioned Documents and Fingerprinting, Forensic Journalism etc.

The Institute of Forensic Science is a constituent institute of Dr. Homi Bhabha State University, Mumbai and is housed under one of the most historically beautiful heritage buildings of the city- the Institute of Science, Mumbai. The campus is an exorbitant with natural beauty as well as highly well-equipped with all essential modern infrastructures, including excellent instrumental and library facilities. Academically, the college consists of 7 multidisciplinary departments, namely, Department of Forensic Science, Department of Forensic Chemistry, Department of Forensic Physics, Department of Forensic Biology, Department of Forensic Psychology, Department of Digital and Cyber Forensics, and Department of Law. The ultimate goal of the institute is providing world class forensic curriculum suiting the students, crime detection agencies, corporate offices, banks, etc. which will ultimately open up job opportunities for the students and allow them in assisting and directing the Judiciary system in the country to its maximum competence!

SYDENHAM INSTITUTE OF MANAGEMENT STUDIES, RESEARCH AND ENTREPRENEURSHIP EDUCATION, MUMBAI

In keeping with the rich Sydenham tradition of imparting high quality education, the Sydenham Institute of Management Studies, Research and Entrepreneurship Education (SIMSREE) was founded in the year 1983. Since then, SIMSREE has endeavoured to produce global managers of shining excellence. Today, 38 years after its inception, SIMSREE stands as one of the most popular management institutes in India. Located at Churchgate, in the heart of the financial capital of the country, SIMSREE has the advantage of being the cynosure of the corporate world and the opportunity to draw from the finest in the industry.

2. SWOC Analysis (Strength, Weakness, Opportunity, Challenges)

Strengths:

1. **Reputation and Heritage:** Dr. Homi Bhabha State University (HBSU) inherits a rich legacy from its constituent colleges established over 100 years back, including the renowned Institute of Science, Mumbai; Elphinstone College, Mumbai; and Sydenham College, Mumbai, which have produced notable alumni in various fields.
2. **Historical Legacy:** With roots dating back over 100 years, the constituent colleges embody a rich heritage of academic excellence, nurturing luminaries like Dr. Homi Bhabha, K. J. Somaiya, and Dr. B. R. Ambedkar, as well as industry leaders like Mukesh Ambani and Chanda Kochhar, shaping India's modern landscape.
3. **Alignment with RUSA Principles:** The establishment of the university aligns with the principles of the Rashtriya Uchchar Shiksha Abhiyan (RUSA), signaling a significant milestone in Maharashtra's higher education landscape and injecting fresh vitality into the state's educational ecosystem.
4. **Efficient Administration:** As a Cluster University with geographically proximate constituent colleges, HBSU benefits from efficient management and administration, enhancing operational effectiveness.
5. **Choice-Based Credit System (CBCS) & NEP -2020 Implementation:** The adoption of CBCS along with holistic implementation of NEP – 2020 allows students flexibility in selecting courses across disciplines, enriching their learning experience and catering to diverse academic interests.
6. **Skill Development Initiatives:** HBSU offers skill-based courses and encourages interdisciplinary learning, preparing students for the demands of the modern workforce and enhancing their employability.
7. **Infrastructure and Facilities:** The university likely boasts contemporary infrastructure and facilities, providing students with a conducive learning environment and access to state-of-the-art resources.
8. **Student-Centric Policies:** HBSU prioritizes student welfare with efficient examination processes, timely assessments, and a supportive academic environment.
9. **Industry Engagement:** The university fosters industry collaborations, internships, and projects, facilitating practical exposure and enhancing students' readiness for the professional world.
10. **Prime Location:** Situated in South Mumbai at Fort, Nariman Point with historical significance, HBSU enjoys a prime location accessible to students and professionals alike, further enhancing its appeal and accessibility.

Weaknesses:

1. **Financial Constraints:** Despite being government-funded, HBSU faces financial constraints that limit investment in infrastructure upgrades, faculty development, and research initiatives.
2. **Limited Track Record:** As a newly established university, HBSU lacks a track record of

academic achievements and institutional reputation compared to more established universities.

3. **Limited Benchmarking and Recognition:** HBSU's ineligibility for accreditation by NAAC or ranking by NIRF due to the lack of five graduating batches diminishes its ability to benchmark against peer institutions nationally and receive external validation of its quality and performance. However, this is being addressed through internalization of quality assurance.
4. **Limited International Exposure:** Despite the rich legacy and reputation, HBSU may face challenges in providing extensive international exposure and attracting a diverse student body from overseas.
5. **Competition:** The competitive landscape of higher education in Mumbai and beyond poses a challenge in terms of student recruitment, especially with the emergence of new private institutions and online learning platforms.

Opportunities:

1. **Global Partnerships:** HBSU can leverage its historical legacy and reputation to forge international partnerships with universities and research institutions, enhancing global collaborations and knowledge exchange.
2. **Digital Transformation:** Embracing digital technologies and online education can expand the university's reach, attract remote learners, and offer flexible learning options, especially in post-pandemic education.
3. **Industry Integration:** Strengthening ties with industries through PPP initiatives for research collaborations, internships, and skill development programs can bridge the gap between academia and industry, fostering innovation and enhancing graduates' employability.
4. **Government Initiatives:** Leveraging government schemes and funding opportunities for higher education can support infrastructure development, research projects, and capacity building at HBSU.
5. **Alumni Engagement:** Engaging with alumni networks and leveraging their expertise and resources can enhance support for student initiatives, mentorship programs, and fundraising efforts, contributing to the university's growth and development.

Challenges:

1. **Economic Instability:** Economic downturns or budget cuts at the state or national level may impact funding for higher education, affecting HBSU's expansion plans and operational sustainability.
2. **Regulatory Changes:** Shifting government policies and regulatory frameworks in education may introduce compliance challenges and administrative burdens, requiring adaptation and resource reallocation.
3. **Technological Disruptions:** Rapid advancements in technology and online learning platforms may disrupt traditional education models, posing a threat to HBSU's competitiveness and relevance if not adequately embraced.
4. **Brain Drain:** The risk of losing talented faculty or graduates to opportunities abroad or

in the private sector may undermine the university's intellectual capital and hinder long-term growth.

5. **Intensified Competition:** Increasing competition from new entrants in the higher education sector, including private universities and online platforms, may erode HBSU's market share and student enrollment numbers if not effectively countered.

3. Organizational Structure and Other Details

3.1 Role and Responsibilities of Key Positions/ bodies of the University

- Hon. Chancellor of the University
The Chancellor, when present, shall preside over the Convocation of the university and may issue directions to the Vice-Chancellor to convene the meeting of any authority of the university for specific purposes, whenever necessary, and the Vice-Chancellor shall submit the minutes of such meeting to the Chancellor for his perusal.
- Hon. Vice Chancellor of the University
Vice-Chancellor is the principal academic and executive officer of the university and ex-officio Chairperson of the Management Council, Academic Council, Board of Examinations and Evaluation, Board of Lifelong Learning and Extension, Finance and Accounts Committee, Board of National and International Linkages and the Board for Innovation, Incubation and Enterprise, Board of Information Technology, Board of Students' Development, Board of Sports and Physical Education and Board of Research and shall preside in the absence of the Chancellor at any convocation for conferring degrees and also at any meeting of Senate.
- Registrar of the University
The Registrar shall, be the Chief Administrative Officer of the university. He shall be a full-time salaried officer and shall work directly under the superintendence, direction and control of the Vice-Chancellor.
- Director, Innovation, Incubation & Linkages
The Director of Innovation, Incubation and Linkages shall be a full time salaried officer who shall be responsible for creation and cultivation of an enabling environment to propagate the concept of innovation, for converting innovative ideas into working models through a process of incubation which shall finally lead to creation of an enterprise and to cultivate, establish, maintain and strengthen the link of the university with premier national and international universities and institutions.
- Finance and Accounts Officer
The Finance and Accounts Officer shall be the principal finance, accounts and audit officer of the university. He shall be a full-time salaried officer and shall work directly under the superintendence, direction and control of the Vice-Chancellor.
- Dean, Faculty of Science and Technology
The Dean be responsible for academic planning and academic audit of the programmes and implementation of academic policies approved by the Academic Council in respect of academic development, maintenance of quality of education including standards of teaching and research and training of teachers within his faculty. He shall work directly under the superintendence, direction and control of the Vice Chancellor;
- Dean, Faculty of Commerce and Management
The Dean be responsible for academic planning and academic audit of the programmes and implementation of academic policies approved by the Academic Council in respect of academic development, maintenance of quality of education

including standards of teaching and research and training of teachers within his faculty. He shall work directly under the superintendence, direction and control of the Vice Chancellor;

- Dean, Faculty of Humanities

The Dean be responsible for academic planning and academic audit of the programmes and implementation of academic policies approved by the Academic Council in respect of academic development, maintenance of quality of education including standards of teaching and research and training of teachers within his faculty. He shall work directly under the superintendence, direction and control of the Vice Chancellor;

- Dean, Faculty of Interdisciplinary Studies

The Dean be responsible for academic planning and academic audit of the programmes and implementation of academic policies approved by the Academic Council in respect of academic development, maintenance of quality of education including standards of teaching and research and training of teachers within his faculty. He shall work directly under the superintendence, direction and control of the Vice Chancellor;

- Director, Student Development

The Director of Students' Development shall be nominated by the Vice-Chancellor, from amongst the teachers having minimum aggregate teaching experience of ten years and desired exposure in the field of extracurricular and extension activities. He shall work directly under the superintendence, directions and control of the Vice-Chancellor.

- Director, Lifelong learning and Extension

The Director of Lifelong Learning and Extension shall be a full-time salaried officer of the university and shall be responsible to carry out the activities of the Board of Lifelong Learning and Extension. He shall work directly under the superintendence, direction and control of the Vice-Chancellor.

- Director, Sports and Physical Education

The Director of Sports and Physical Education shall be a full time Director, and Physical Education salaried officer responsible for promoting the culture of sports and supervising sports related activities in the university, colleges and recognized institutions. He shall work under the superintendence, direction and control of the Vice-Chancellor.

- Director, National Service Scheme (NSS)

Director of National Service Scheme shall be nominated by the Vice-Chancellor from amongst the teachers having minimum aggregate teaching experience of years, experience of at least three years as NSS Programme Officer and desired exposure in the field of National Service Scheme activities

- Librarian/Director Knowledge Resource Centre, HBSU

Director, Knowledge Resource Center shall be a full-time salaried officer of the university and shall be in-charge of the Knowledge Resource Centre in the university. He shall work directly under the superintendence, direction and control of the Vice-Chancellor.

- Director of the IQAC plays a critical role in driving institutional quality enhancement efforts and ensuring compliance with NAAC's accreditation standards, criteria, and processes, contributing to the overall improvement of

academic excellence, governance effectiveness, and stakeholder satisfaction within the educational institution.

3.2 Board of Governance

- The Vice-Chancellor-Chairperson;
- One eminent person either from the field of education, industry, agriculture, commerce, banking, finance, social, cultural and other allied fields to be nominated by the Chancellor;
- two Deans to be nominated by the Vice-Chancellor for the tenure of two and half year;
- three persons, who are not the members of the General Council, nominated by the Vice Chancellor;
- one principal of constituent college;
- two teachers who are not principals of constituent colleges to be elected from amongst the teachers of the University, out of whom one shall be elected from open category amongst the teachers and one elected from amongst the teachers of the University out of Scheduled Castes or Scheduled Tribes or De-notified Tribes (VimuktaJatis) or Nomadic Tribes or Other Backward Class categories, by rotation;
- one Alumnus nominated by Vice-Chancellor;
- one bonafide Student nominated by Vice-Chancellor.

3.3 Details of the Departments and Courses offered in the University:

Sl. No.	Departments	Course Offered		Duration (years)	Total enrollment	Sanctioned posts of Regular Faculty	Posts filled in Regular mode	Percentage of Posts filled	Student Teacher Ratio
1	Botany	UG	Y	3	--	5	3	60	--
		PG	Y	2	29	9	4	44	01:07
		PG+	Y	3	16	--	--	--	--
2	Physics	UG	Y	3	--	3	1	33	--
		PG	Y	2	40	12	6	50	01:07
		PG+	Y	3	22	--	--	--	--
3	Zoology	UG	Y	3	--	4	3	75	--
		PG	Y	2	35	9	4	44	01:09
		PG+	Y	3	6	--	--	--	--
4	Microbiology	UG	Y	3	--	4	2	50	--
		PG	Y	2	45	8	4	50	01:11
		PG+	Y	3	8	--	--	--	--
5	Chemistry	UG	Y	3	--	5	4	80	--
		PG	Y	2	124	21	14	67	01:09
		PG+	Y	3	33	--	--	--	--
6	Mathematics	UG	Y	3	--	6	5	83	--

Sl. No.	Departments	Course Offered		Duration (years)	Total enrolment	Sanctioned posts of Regular Faculty	Posts filled in Regular mode	Percentage of Posts filled	Student Teacher Ratio
		PG	Y	2	78	5	2	40	01:39
		PG+	Y	3	2	--	--	--	--
7	Biochemistry	PG	Y	2	26	7	3	43	01:09
		PG+	Y	3	4	--	--	--	--
8	Biotechnology	UG	Y	3	120	5	5	100	01:24
		PG	Y	2	33	3	3	100	01:11
		PG+	Y	3	3	--	--	--	--
9	EVS	PG	Y	2	36	3	3	100	01:12
		PG+	Y	3	7	--	--	--	--
10	IT	UG	Y	3	217	3	3	100	01:72
		PG	Y	2	13	2	2	100	01:07
11	Statistics	UG	Y	3	--	7	0	0	--
12	Bioinformatics	PG	Y	2	15	2	2	100	01:08
13	Industrial Biotechnology	PG	Y	2	20	2	2	100	01:10
14	Data Science	UG	Y	3	83	--	--	--	--
		PG	Y	2	29	2	2	100	01:15
15	English	UG	Y	3	--	5	3	60	--
		PG	Y	2	8	--	--	--	--
		PG+	Y	3	6	--	--	--	--
16	Marathi	UG	Y	3	--	2	2	100	--
		PG	Y	2	7	--	--	--	--
		PG+	Y	3	--	--	--	--	--
17	Hindi	UG	Y	3	--	2	2	100	--
18	History	UG	Y	3	--	3	1	33	--
		PG+	Y	3	1	--	--	--	--
19	Geography	UG	Y	3	--	2	1	50	--
		PG+	Y	3	1	--	--	--	--
20	Psychology	UG	Y	3	--	1	1	100	--
		PG+	Y	3	--	--	--	--	--
21	Economics	UG	Y	3	--	8	4	50	--
22	Political Science	UG	Y	3	--	2	1	50	--
23	Sociology	UG	Y	3	--	2	1	50	--
24	Education	UG	Y	2	78	8	4	50	01:20
25	Business Law	UG	Y	3	--	2	1	50	--
26	Accounts	UG	Y	3	--	--	--	--	--
27	Management	UG	Y	3	502	--	--	--	--
28	Physical Education	UG	Y	3	--	3	1	33	--

Sl. No.	Departments	Course Offered		Duration (years)	Total enrolment	Sanctioned posts of Regular Faculty	Posts filled in Regular mode	Percentage of Posts filled	Student Teacher Ratio
29	Commerce	UG	Y	3	2346	12	7	58	01:335
		PG	Y	2	290	--	--	--	--
		PG+	Y	3	10	--	--	--	--
30	Arts	UG	Y	3	309	24	20	83	01:15
		PG	Y	2	15	--	--	--	--
		PG+	Y	3	8	--	--	--	--
31	Science	UG	Y	3	118	27	18	67	01:07
32	Forensic Science	UG	Y	3	--	9	6	67	--
		PG	Y	2	--	25	12	48	--
33	Management Studies, Research and Entrepreneurship Education	PG	Y	2	--	17	5	29	--
Total					4720	231	130	56	01:36

Details of Non-Teaching Staff:

Department	Sanctioned Posts	Posts yet to be Sanctioned
Administrative	85	--
Technical	00	--
Others	113	--
Total	198	--

Teaching staff: Non-teaching ratio – 2:1

(2:1 ratio is for total filled posts) * Total Non-teaching posts filled : 65

4. Detailed Institutional Development Plan

4.1 Teaching, Learning, and Evaluation

Dr. Homi Bhabha State University (HBSU), Mumbai, aims to establish itself as a center of academic excellence by fostering innovative teaching methodologies, enhancing the learning experience, and implementing robust evaluation processes. This Institutional Development Plan (IDP) outlines strategic initiatives to strengthen teaching, learning, and evaluation practices in alignment with the university's mission and vision.

Objectives

- To enhance the quality of teaching by integrating modern pedagogical techniques and digital tools.
- To create an inclusive and student-centric learning environment.
- To implement transparent, fair, and outcome-based evaluation systems.
- To promote continuous faculty development.
- To bridge the gap between theoretical knowledge and practical application.

3. Teaching Strategies

a) Faculty Development:

- Organize regular workshops, seminars, and training programs on new-age teaching methodologies, including flipped classrooms, blended learning, and outcome-based education (OBE).
- Encourage faculty participation in Faculty Development Programs (FDP) offered by reputed national and international institutions.
- Establish a mentorship program where senior faculty guide junior faculty in effective teaching practices.

b) Curriculum Innovation:

- Introduce interdisciplinary courses and flexible credit-based systems.
- Collaborate with industries to design curricula that align with current and future skill requirements.
- Promote project-based and experiential learning approaches.

c) Technology Integration:

- Implement a Learning Management System (LMS) for effective content delivery, assessment, and feedback.
- Encourage the use of smart classrooms equipped with multimedia tools.
- Support the development of e-learning modules and open educational resources (OER).

4. Learning Environment

a) Student-Centric Approach:

- Create personalized learning plans for students based on their academic interests and career goals.
- Establish student support services, including academic counseling, career guidance, and mentorship programs.
- Foster peer learning through study groups, academic clubs, and collaborative projects.

b) Research and Innovation:

- Encourage students to engage in research projects and present their findings at conferences.
- Set up incubation centers and innovation labs to support entrepreneurial ventures.
- Facilitate industry internships and field visits to provide real-world exposure.

5. Evaluation Mechanisms

a) Continuous Assessment:

- Implement a continuous assessment system comprising quizzes, assignments, presentations, and practicals.
- Develop clear rubrics for each form of assessment to ensure transparency and consistency.

b) Outcome-Based Evaluation:

- Align assessment strategies with program-specific learning outcomes.
- Use formative and summative evaluations to gauge student progress effectively.

c) Feedback and Improvement:

- Regularly review and update evaluation processes based on feedback and best practices.

6. Monitoring and Review

- Establish a Teaching-Learning and Evaluation Committee (TLEC) to oversee the implementation of strategies outlined in the IDP.
- Conduct periodic internal and external audits to ensure quality and compliance with academic standards.
- Use data analytics to track student performance, faculty effectiveness, and overall academic progress.

This comprehensive plan aims to elevate the teaching, learning, and evaluation standards at Dr. Homi Bhabha State University, Mumbai. By fostering a culture of innovation,

inclusivity, and continuous improvement, the university will strengthen its academic reputation and produce well-rounded, future-ready graduates.

4.2 Research, Development, Innovation, and Intellectual Property Rights (IPR)

Dr. Homi Bhabha State University is committed to fostering a culture of research, development, and innovation that aligns with national priorities and global standards. This section aims to outline strategic objectives and actionable initiatives to strengthen the university's ecosystem for research, innovation, and the protection and commercialization of intellectual property.

Research

Objectives:

- To promote interdisciplinary and transdisciplinary research addressing societal challenges.
- To enhance research capabilities through strategic collaborations with industry, government agencies, and international institutions.
- To secure research grants from national and international funding bodies.

Action Plan:

- Establish a Central Research Office (CRO) to coordinate and streamline research activities.
- Create research clusters in priority areas such as:
 - Artificial Intelligence and Data Science
 - Sustainable Energy and Environment
 - Biotechnology and Healthcare Innovations
 - Social Sciences and Public Policy
- Organize annual research conclaves and seminars to share findings and foster collaborations.
- Incentivize faculty and students for high-impact research publications.

Expected Outcomes:

- Increased research output in Scopus-indexed listed journals.
- Growth in externally funded research projects.
- Stronger partnerships with industries and research organizations.

3. Development

Objectives:

- To translate research into tangible solutions for industry and society.
- To build state-of-the-art research infrastructure.
- To develop skill enhancement programs aligning with emerging technologies.

Action Plan:

- Set up advanced laboratories and innovation hubs.
- Develop partnerships with industries for collaborative projects and internships.
- Launch faculty development programs to upskill researchers in modern methodologies and tools.
- Introduce seed funding initiatives for prototype development and proof-of-concept research.

Expected Outcomes:

- Establishment of 5-6 Centers of Excellence in strategic domains.
- Enhanced employability of students through hands-on training.
- Increased research-to-product conversion rate.

Innovation**Objectives:**

- To foster a creative and entrepreneurial mindset among students and faculty.
- To support startups and incubate innovative ideas.

Action Plan:

- Establish an Incubation and Innovation Center.
- Organize hackathons, ideathons, and innovation challenges.
- Collaborate with startup ecosystems and venture capitalists.
- Introduce an "Innovation Credit" system, allowing students to earn academic credits for innovative projects.

Expected Outcomes:

- Incubation of 10+ student and faculty startups annually.
- Enhanced patent filing and commercialization of innovative ideas.
- Stronger linkages with national innovation networks like AIM and NITI Aayog.

Intellectual Property Rights (IPR)**Objectives:**

- To safeguard the intellectual property of researchers.
- To build IPR awareness and capacity among faculty and students.
- To commercialize university-generated patents and technologies.

Action Plan:

- Establish an IPR Cell to provide guidance on patent filing, copyrights, and trademarks.

- Conduct regular IPR workshops and training programs.
- Develop an IPR policy to outline the ownership, revenue sharing, and commercialization processes.
- Partner with legal and business experts to support technology transfer and licensing.

Expected Outcomes:

- Filing of 50+ patents in the next 5 years.
- Monetization of at least 10 technologies through licensing agreements.
- Enhanced awareness and integration of IPR into research projects.

Monitoring and Evaluation

- Establish a Research and Innovation Monitoring Committee.
- Implement an annual progress review system with clear KPIs for research output, patent filings, and innovation milestones.
- Set up feedback mechanisms involving industry partners and alumni to align initiatives with real-world needs.

This Institutional Development Plan aims to position Dr. Homi Bhabha State University as a beacon of research excellence, innovation, and intellectual property protection. Through strategic interventions and collaborative efforts, the university will drive impactful research and foster an innovation-driven ecosystem for sustainable development.

4.3 Industry-Academia Partnership and Social Outreach

Dr. Homi Bhabha State University (HBSU), Mumbai, is committed to fostering academic excellence, research innovation, and societal impact. This section aims to outline strategic initiatives to strengthen collaboration with industry, academia, corporate sectors, and NGOs. This plan envisions a dynamic ecosystem that bridges knowledge creation, skill development, and practical application to contribute to national and global progress. HBSU envisions to become a globally recognized institution that advances knowledge, nurtures innovation, and addresses societal challenges through collaborative partnerships.

Intent of the partnership:

- To establish strong linkages with industries, corporate sectors, and NGOs.
- To create an ecosystem for research, innovation, and entrepreneurship.
- To enhance student employability and faculty development through strategic partnerships.
- To integrate sustainable practices and social responsibility into academic frameworks.

Objectives

- Foster mutually beneficial partnerships with industries and corporates for knowledge exchange and technological advancements.

- Promote collaborative research and consultancy projects with academia and NGOs.
- Facilitate internships, live projects, and industrial visits for students.
- Organize workshops, guest lectures, and seminars led by industry experts.
- Establish innovation hubs and incubation centers with corporate support.
- Encourage CSR collaborations for community development initiatives.

Strategic Initiatives

A. Industry-Academia Collaboration

1. **Joint Research Projects:** Develop collaborative research programs with industries to address real-world challenges and foster innovation.
2. **Skill Development Programs:** Design industry-relevant courses, certifications, and training modules to bridge skill gaps.
3. **Technology Transfer:** Facilitate the exchange of knowledge and technology between academia and industry partners.
4. **Advisory Boards:** Establish industry advisory boards to guide curriculum development and research priorities.

B. Corporate Sector Engagement

1. **Internships and Placements:** Partner with corporate organizations to create internship opportunities, job placements, and mentorship programs for students.
2. **Executive Education:** Offer customized training and executive development programs for corporate employees.
3. **Incubation and Startups:** Develop incubation centers supported by corporate funding, fostering entrepreneurship and innovation.
4. **Memoranda of Understanding (MoUs):** Sign strategic MoUs with key corporate players for long-term collaborations.

C. NGO Networking and Social Outreach

1. **Community Engagement:** Collaborate with NGOs to involve students and faculty in community development and sustainability projects.
2. **CSR Partnerships:** Leverage corporate social responsibility (CSR) initiatives to support education, healthcare, and environmental programs.
3. **Social Innovation Labs:** Establish social innovation labs to design solutions for societal challenges in partnership with NGOs and social enterprises.
4. **Volunteering Programs:** Encourage student participation in NGO-driven campaigns and social welfare activities.

Implementation Roadmap

Phase 1: Foundation (Year 1)

- Identify and reach out to potential industry, corporate, and NGO partners.
- Establish an Industry-Academia Collaboration Cell (IACC).
- Sign MoUs with at least 10 organizations across sectors.

Phase 2: Expansion (Years 2-3)

- Launch joint research projects and skill development programs.
- Set up incubation centers and innovation hubs.
- Organize annual industry-academia conclaves.

Phase 3: Integration (Years 4-5)

- Scale up community engagement initiatives through NGO partnerships.
- Monitor and evaluate collaborative projects' impact.
- Establish a dedicated Corporate Relations Office.

6. Monitoring and Evaluation

- Establish KPIs such as the number of MoUs signed, research projects initiated, internships facilitated, and community outreach programs executed.
- Conduct annual reviews and stakeholder feedback sessions.
- Prepare an annual report highlighting collaborative achievements and areas for improvement.

The plan in brief aims to create a robust network between academia, industry, corporate sectors, and NGOs. This collaborative framework will enhance research output, improve student employability, and address societal needs, driving sustainable development and innovation.

4.4 Fostering Student Employability and Entrepreneurial Spirit

In order to foster an ecosystem that empowers students with the skills, knowledge, and mindset necessary for employability and entrepreneurship, contributing to the socio-economic development of the nation.

Intent of the Plan

- To bridge the gap between academia and industry through strategic collaborations.
- To cultivate an entrepreneurial culture by providing resources, mentorship, and funding opportunities.
- To design skill-based programs that enhance students' job readiness and innovative thinking.
- To create a sustainable model for continuous improvement in employability and entrepreneurial outcomes.

Objectives

- 1. Enhancing Employability Skills**
 - Integrate industry-relevant courses and certifications.
 - Organize workshops on communication skills, digital literacy, critical thinking, and problem-solving.

- Foster partnerships with corporates for internships, live projects, and placement drives.
- 2. **Promoting Entrepreneurship**
 - Establish an Entrepreneurship Development Cell (EDC).
 - Create incubation centers to support student startups.
 - Host hackathons, idea-pitching contests, and business plan competitions.
 - Facilitate seed funding and connect students with venture capitalists and angel investors.
- 3. **Strengthening Industry-Academia Collaboration**
 - Form industry advisory boards for curriculum development.
 - Conduct guest lectures and mentorship programs with industry leaders.
 - Introduce joint certification programs with corporate partners.
- 4. **Skill Development and Innovation**
 - Launch a Skill Development Centre offering short-term and long-term courses.
 - Encourage interdisciplinary projects and innovation challenges.
 - Provide access to modern labs, maker spaces, and digital tools.

Implementation Plan

Phase 1: Foundational Setup (Year 1-2)

- Establish the Entrepreneurship Development Cell.
- Form partnerships with 10+ companies for internships and placements.
- Launch a series of workshops on employability skills.
- Identify and equip incubation spaces.

Phase 2: Program Expansion (Years 3-6)

- Initiate joint industry-academia certification courses.
- Organize an annual Entrepreneurship Summit.
- Introduce a "Startup Bootcamp" for aspiring student entrepreneurs.
- Implement a job portal exclusive to university students.

Phase 3: Sustainable Growth (Years 6-10)

- Develop a robust mentorship network.
- Establish a revolving fund to support student startups.
- Evaluate and update the curriculum in line with emerging industry trends.
- Strengthen alumni engagement for funding and networking support.

Monitoring and Evaluation

- **Employability Rate:** Measure the percentage of students securing jobs within six months of graduation.
- **Entrepreneurial Outcomes:** Track the number of startups launched and their sustainability rate.
- **Industry Partnerships:** Assess the number and depth of collaborations.

- **Student Feedback:** Conduct bi-annual surveys to gather feedback on skill development initiatives.

Dr. Homi Bhabha State University aims to create a vibrant, innovative, and employment-centric environment. It lays a strong foundation for fostering student employability and entrepreneurial spirit, ensuring sustainable growth and national contribution.

4.5 Achieving NAAC Accreditation and Improving NIRF and QS Rankings

Dr. Homi Bhabha State University (HBSU) recognizes the pivotal role of national and international rankings and accreditation in establishing its reputation for academic excellence, research innovation, and holistic development. As part of the Institutional Development Plan (IDP), HBSU is committed to achieving high standards in NAAC accreditation and improving its standing in NIRF and QS rankings. The following strategic initiatives will be undertaken:

NAAC Accreditation Strategy

a. Strengthening Governance and Leadership:

- Ensure transparent and effective governance by aligning with the Maharashtra Public Universities Act, 2016.
- Establish dedicated committees to monitor academic quality, research, and innovation.

b. Curriculum Development:

- Introduce outcome-based education (OBE) with regular curriculum revisions.
- Incorporate multidisciplinary courses, value-added programs, and skill-based learning.

c. Research and Innovation:

- Promote a robust research ecosystem with seed funding for innovative projects.
- Encourage faculty and students to publish in SCOPUS, WoS, and UGC CARE-listed journals.

d. Student Support and Progression:

- Establish a comprehensive student support system with mentorship programs and career counseling.
- Strengthen alumni engagement for networking and placement opportunities.

e. Infrastructure and Learning Resources:

- Upgrade libraries, laboratories, and digital resources.
- Develop a centralized learning management system (LMS) for effective teaching-learning processes.

f. Institutional Values and Social Responsibilities:

- Organize community outreach programs and sustainability initiatives.
- Foster an inclusive and environmentally responsible campus culture.

NIRF Ranking Strategy**a. Teaching, Learning, and Resources (TLR):**

- Improve faculty-student ratio by recruiting qualified faculty members.
- Enhance faculty development programs for continuous professional growth.

b. Research and Professional Practice (RP):

- Establish research centers and innovation hubs.
- Facilitate collaborations with industries and government agencies for funded projects.

c. Graduation Outcomes (GO):

- Strengthen placement cells to increase employability and entrepreneurship.
- Conduct skill enhancement workshops and soft skills training.

d. Outreach and Inclusivity (OI):

- Implement policies for gender inclusivity and support for marginalized communities.
- Promote national and international student exchange programs.

e. Perception (PR):

- Boost DBHSU's brand image through strategic communication and media presence.
- Showcase success stories of faculty, students, and alumni.

QS Ranking Strategy**a. Academic Reputation:**

- Partner with globally recognized institutions for joint research and academic collaborations.
- Encourage faculty to participate in international conferences and symposiums.

b. Employer Reputation:

- Build strong relationships with top companies for internships and placements.
- Organize annual industry-academia meets to align with market demands.

c. Faculty-Student Ratio:

- Ensure optimal faculty recruitment to maintain a healthy faculty-student ratio.
- Support faculty in obtaining global teaching and research exposure.

d. Citations per Faculty:

- Incentivize high-impact research publications.
- Facilitate access to international research databases and funding opportunities.

e. Internationalization:

- Develop student and faculty exchange programs with global universities.
- Establish international collaborations for research and innovation.

Monitoring and Evaluation

- Form an Accreditation and Ranking Task Force to oversee the implementation of these strategies.
- Conduct periodic internal audits and feedback sessions to assess progress.
- Utilize data analytics to track key performance indicators (KPIs).

Through these concerted efforts, Dr. Homi Bhabha State University aims to secure a prestigious position in NAAC accreditation, NIRF rankings, and QS World University Rankings, driving its vision of academic excellence and global recognition.

4.6 Leveraging the Alumni Strength

Dr. Homi Bhabha State University (HBSU) recognizes the invaluable role that its alumni play in fostering institutional growth, enhancing academic excellence, and strengthening industry-academia collaborations. As a part of the Institutional Development Plan, HBSU will strategically leverage its alumni strength through the following initiatives:

1. **Establishment of an Alumni Association:** HBSU will establish a formal Alumni Association to serve as a structured platform for engagement. This association will facilitate communication, organize events, and provide opportunities for alumni to contribute to the university's development.
2. **Alumni Mentorship Program:** The university will launch a mentorship program where alumni, especially those excelling in various industries, will guide current students on career paths, skill development, internships, and entrepreneurial ventures. This program aims to bridge the gap between academic learning and real-world application.
3. **Industry Connect and Placements:** Leveraging the professional networks of alumni, HBSU will strengthen its placement and internship programs. Alumni working in reputed organizations can facilitate job placements, offer internship opportunities, and provide insights into industry trends.
4. **Fundraising and Resource Mobilization:** Alumni will be invited to participate in fundraising initiatives aimed at creating scholarships, endowment funds, and infrastructure development projects. This will not only enhance the university's resources but also foster a sense of giving back among alumni.

5. **Knowledge Sharing and Guest Lectures:** HBSU will organize regular guest lectures, workshops, and webinars featuring distinguished alumni. These sessions will expose students to contemporary issues, innovative practices, and emerging technologies.
6. **Recognition and Awards:** An "Outstanding Alumni Award" will be instituted to honor alumni who have made significant contributions to their fields or to society. Recognizing their achievements will inspire both current students and fellow alumni to strive for excellence.
7. **Alumni Portal:** A dedicated online alumni portal will be developed, enabling alumni to stay connected, share their achievements, and collaborate with the university. This portal will include job postings, newsletters, event updates, and networking opportunities.
8. **Collaborative Research and Innovation:** Alumni engaged in research and innovation will be encouraged to partner with HBSU faculty and students on collaborative projects. This will strengthen the university's research output and foster an innovation ecosystem.
9. **Social Impact Initiatives:** Alumni will be invited to participate in community outreach programs, sustainability projects, and social impact initiatives spearheaded by the university. Their involvement will amplify the reach and effectiveness of these efforts.
10. **Annual Alumni Meet:** An Annual Alumni Meet will be institutionalized, providing a forum for networking, experience sharing, and strategic discussions about HBSU's future. This event will strengthen bonds between alumni and the university.

By harnessing the collective strength and expertise of its alumni, HBSU aims to build a vibrant, supportive, and engaged community that contributes to the university's holistic growth and global reputation.

4.7 Infrastructural Development Plan for Dr. Homi Bhabha State University (HBSU)

Dr. Homi Bhabha State University (HBSU), as a premier institution committed to academic excellence, envisions a robust infrastructural development plan aimed at enhancing its physical and digital facilities to support cutting-edge research, innovative teaching, and holistic student development. The plan is structured to address current gaps, anticipate future needs, and align with the university's strategic goals.

1. Academic Infrastructure:

- **Smart Classrooms:** Upgrading traditional classrooms into technology-enabled smart classrooms with interactive boards, high-speed internet, and digital learning tools.
- **Laboratories:** Establishing state-of-the-art laboratories for science, technology, and interdisciplinary research, ensuring students have access to the latest equipment and technology.
- **Research Centers:** Setting up dedicated research hubs for emerging fields such as Artificial Intelligence, Sustainable Development, and Biotechnology.

2. Library and Information Resources:

- **Digital Library:** Expanding e-library resources with subscriptions to international journals, e-books, and databases.
- **Learning Resource Center:** Creating collaborative spaces for students and faculty to engage in group discussions, workshops, and research activities.
- **24/7 Study Zones:** Establishing round-the-clock study areas with adequate lighting, internet access, and security.

3. Student Amenities:

- **Hostel Facilities:** Developing modern hostels with secure and comfortable accommodation, separate for boys and girls, along with recreational and study spaces.
- **Health and Wellness:** Setting up a health center equipped with medical staff, counseling services, and wellness programs.
- **Sports Complex:** Building a multipurpose sports complex with facilities for indoor and outdoor games to promote physical fitness and team spirit.

4. Digital Infrastructure:

- **Campus Wi-Fi:** Ensuring seamless high-speed internet connectivity across the campus.
- **Learning Management System (LMS):** Implementing an LMS to streamline online learning, assignment submissions, and academic interactions.
- **Data Center:** Establishing a centralized data center for secure storage and management of academic records and research data.

5. Sustainable and Green Campus Initiatives:

- **Renewable Energy:** Installing solar panels and promoting energy-efficient lighting systems.
- **Waste Management:** Implementing effective waste segregation, recycling processes, and rainwater harvesting systems.
- **Green Spaces:** Developing eco-friendly zones with tree plantations, gardens, and dedicated relaxation spaces.

6. Accessibility and Mobility:

- **Barrier-Free Access:** Ensuring all buildings are wheelchair accessible with ramps, lifts, and tactile paths.
- **Transport Facilities:** Introducing electric shuttle services within the campus and partnerships with public transport to improve connectivity.

7. Expansion and Renovation:

- **New Academic Blocks:** Constructing additional academic buildings to accommodate growing student enrollment.

- **Auditoriums and Seminar Halls:** Building modern auditoriums and conference halls for hosting seminars, lectures, and cultural events.
- **Renovation Projects:** Upgrading existing infrastructure to meet contemporary standards and ensure safety compliance.

Implementation and Monitoring: The infrastructural development plan will be executed in a phased manner, with clear timelines and budget allocations. A dedicated Infrastructure Development Committee will oversee project execution, ensuring quality control, timely completion, and alignment with HBSU's vision. Regular audits and stakeholder feedback will guide continuous improvement.

This comprehensive infrastructural development plan will transform HBSU into a dynamic, future-ready university, fostering an environment conducive to academic excellence, innovation, and sustainable growth.

4.8 HBSU's AI and Futuristic Technology Roadmap: Innovating for a Smarter Tomorrow

Dr. Homi Bhabha State University (HBSU) envisions harnessing Artificial Intelligence (AI) and futuristic technologies to create a transformative academic ecosystem. The goal is to foster innovation, streamline operations, enhance learning experiences, and prepare students for the digital future.

Objectives

1. **Enhanced Learning and Teaching:** Integrate AI-powered tools to personalize learning paths, provide real-time feedback, and support adaptive learning methodologies.
2. **Research and Innovation:** Establish AI research centers to encourage interdisciplinary projects focused on emerging technologies.
3. **Operational Efficiency:** Automate administrative processes to ensure seamless university operations.
4. **Skill Development:** Introduce specialized courses in AI, machine learning, data science, and blockchain.
5. **Sustainability:** Use technology to drive green initiatives and resource optimization.

Implementation Plan

1. Academic Integration

- **Curriculum Enhancement:** Incorporate AI and futuristic technologies into existing programs, offering both foundational and advanced courses.
- **Virtual Labs:** Develop AI-powered simulations and virtual labs for practical learning.
- **Collaborative Research:** Partner with tech companies and research institutions to offer internships, projects, and innovation challenges.

2. Smart Campus Initiatives

- **AI-enabled Classrooms:** Implement smart boards, facial recognition for attendance, and AI tutors.
- **Digital Libraries:** Create an AI-integrated library system that offers personalized recommendations and automated resource management.
- **IoT-based Facilities Management:** Utilize Internet of Things (IoT) devices for energy efficiency, security, and infrastructure monitoring.

3. Administrative Transformation

- **AI Chatbots:** Deploy AI-powered chatbots to handle student queries, course registrations, and exam schedules.
- **Predictive Analytics:** Use AI to forecast enrollment trends, optimize resource allocation, and enhance decision-making.
- **Blockchain for Records:** Implement blockchain technology for secure and transparent academic record-keeping.

4. Research and Development

- **AI Research Center:** Establish a dedicated AI research hub focusing on natural language processing, computer vision, and robotics.
- **Hackathons and Competitions:** Organize AI and tech innovation contests to inspire student creativity.
- **Funding and Grants:** Seek collaborations for AI-based research funding from government and private sectors.

5. Skill Development and Capacity Building

- **Faculty Training:** Conduct workshops to train faculty on AI tools and digital pedagogy.
- **Student Certification Programs:** Introduce AI and tech certification courses in collaboration with industry leaders.
- **Entrepreneurial Support:** Set up incubators to support AI-driven startups and innovation.

6. Community and Social Impact

- **AI for Social Good:** Launch AI projects aimed at solving societal challenges, such as healthcare diagnostics, disaster prediction, and climate monitoring.
- **Public Awareness Campaigns:** Educate the broader community about AI's potential and ethical considerations.

Monitoring and Evaluation

A dedicated AI and Technology Committee will be established to:

- Set key performance indicators (KPIs) for AI adoption and tech integration.
- Conduct regular audits and feedback sessions.
- Publish annual reports on technological advancements and their impact.

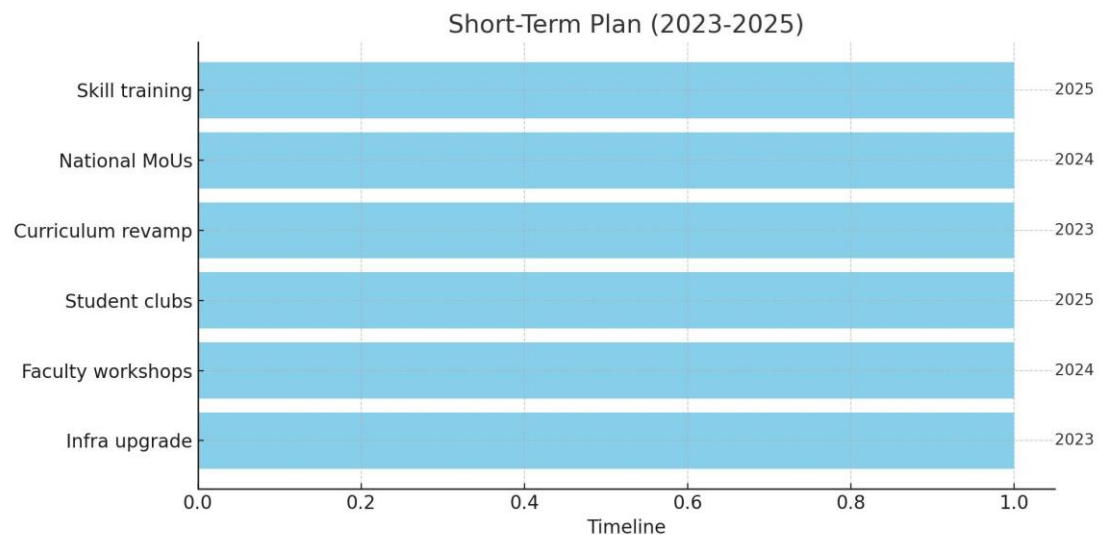
HBSU's AI and futuristic technology usage plan aims to transform the university into a beacon of innovation and digital excellence. By embracing cutting-edge technologies, the university will empower students, faculty, and society at large to navigate and thrive in the AI-driven era.

5. IDP Timeline (2023-2033)

To achieve the strategic vision of the institution, we propose a structured development plan segmented into short-term, mid-term, and long-term goals. Each phase is carefully outlined to build a progressive and sustainable future for the institution.

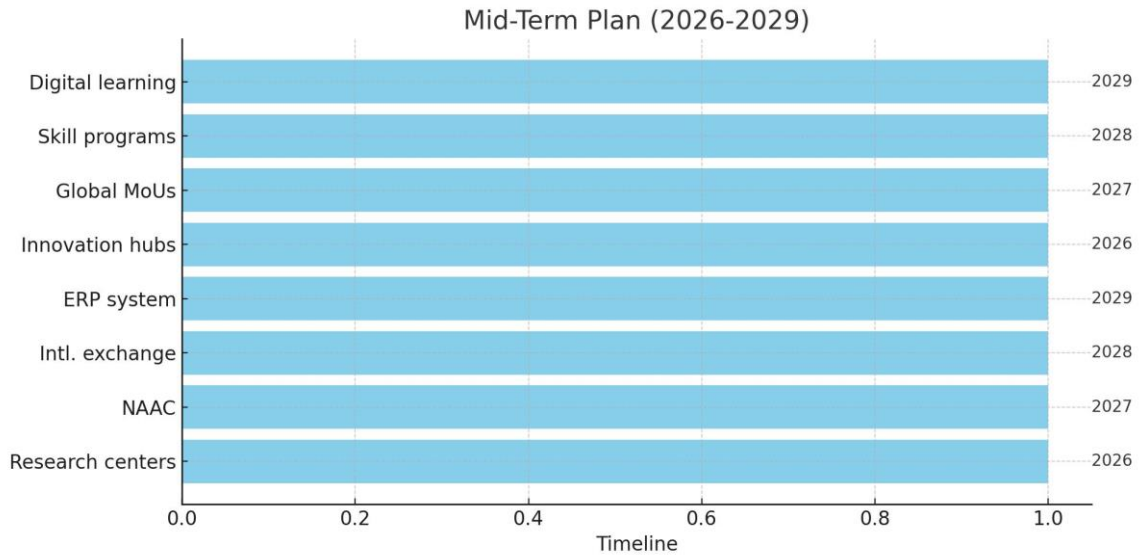
Short-Term Plan (2023-2025)

- **Infrastructure Enhancement:** Modernize classrooms, labs, and libraries with smart technology.
- **Faculty Development:** Organize workshops and training programs for skill enhancement.
- **Student Engagement:** Introduce new student clubs, mentoring programs, and soft skills training.
- **Academic Reforms:** Update curricula to align with industry standards and NEP 2020 guidelines.
- **Partnerships:** Establish MoUs with at least 10 national organizations for collaborative projects.



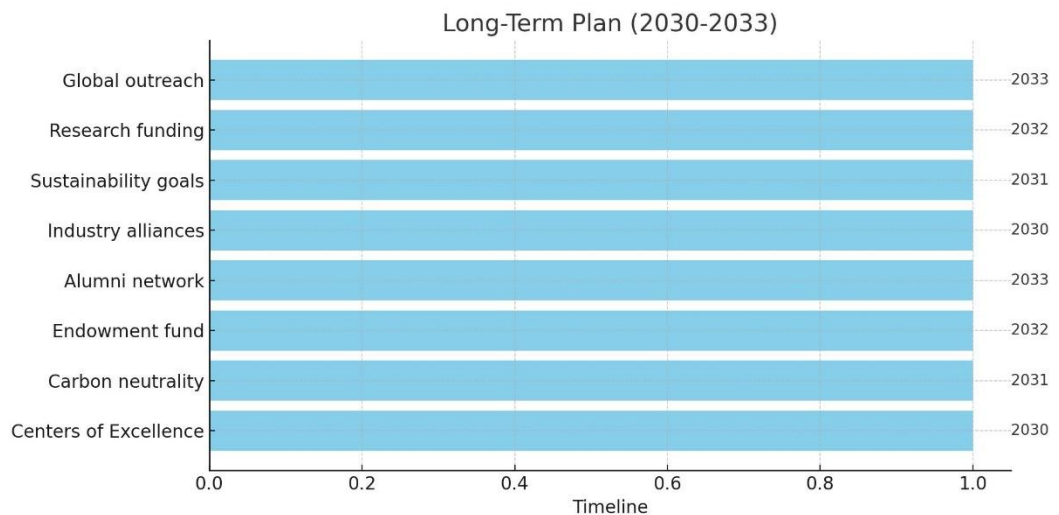
Mid-Term Plan (2026-2029)

- **Research and Innovation:** Set up dedicated research centers and innovation hubs.
- **Accreditation:** Achieve NAAC 'A+' grade and participate in international rankings.
- **Global Collaborations:** Initiate student and faculty exchange programs with international universities.
- **Digital Transformation:** Implement ERP systems for seamless academic and administrative operations.
- **Skill Development:** Launch new diploma and certificate programs catering to emerging sectors.



Long-Term Plan (2030-2033)

- **Center of Excellence:** Establish interdisciplinary Centers of Excellence in AI, sustainability, and entrepreneurship.
- **Sustainability Initiatives:** Implement campus-wide green policies and achieve carbon neutrality.
- **Endowment Fund:** Create a robust endowment fund to support scholarships, research, and infrastructure.
- **Industry Integration:** Form strategic alliances with top industry players for curriculum design and internships.
- **Alumni Network:** Build a global alumni network fostering mentorship, fundraising, and institutional promotion.



This structured and phased approach ensures our institution steadily progresses towards achieving its goals while adapting to emerging trends and challenges. The timeline diagrams provide a clear visual representation of our commitment to holistic growth and excellence.