

## B K BIRLA INSTITUTE OF ENGINEERING & TECHNOLOGY, PILANI



## STRATEGIC PLAN

2023-2028





Prepared By Faculty of BKBIET, Pilani

**AUGUST 5 2023** 

BK Birla Institute of Engineering & Technology
PILANI-333031 (Rajasthan) INDIA

## **Abbreviations**

ABC	Academic Bank of Credit
ABTRC	Aditya Birla Training and Research Centre
AICTE	All India Council for Technical Education
AMC	Annual Maintenance Contact
ATM	Automated Teller Machine
BKBIET	B K Birla Institute of Engineering & Technology
BKBIHE	B K Birla Institute of Higher Education
BOG	Board of Governance
BPTRC	Birla Professional Training Research Centre
BTTI	Birla Technical Training Institute
BTU	Bikaner Technical University
CBCS	Choice Based Credit System
COs	Course Outcomes
COVID	Corona Virus Disease
ERP	Enterprise Resource Planning
FDP	Faculty Development Program
GoI	Government of India
ICCT	Information Communication and Computation Technology.
ICT	Information and Communications Technology
IEEE	Institute of Electrical and Electronics Engineers
IT	Information Technology
ITI	Industrial Training Institute
KVA	Kilo Volt Ampere
M.Tech	Master of Technology
MHRD	Ministry of Human Resource Development
	Memorandum of Understanding
MOUs	Micro, Small & Medium Enterprises
MSME	National Assessment and Accreditation Council
NAAC	National Board of Accreditation
NBA	
NEP	National Education Policy
NGOs	Non-Governmental Organization
NPTEL	National Programme on Technology Enhanced Learning
ODL	Open Distance Learning
PEOs	Program Education Objectives
PG	Program Outcomes
POs	110gram Gateomes
PSOs	Program Specific Outcomes
QB	Question Bank
R&D	Research and Development
RO	Reverse Osmosis
SWOC	Strength Weakness Opportunities Challenges
UG	Under Graduate
UGC	University Grants Commission
USA	United States America
UTube	YouTube
VLSI	Very Large-Scale Integration

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#### Introduction

#### 1 Who we are?

The Institute is approved by AICTE, New Delhi and is affiliated to Bikaner Technical University (BTU), Bikaner.

The Institution has been true to its commitment in providing quality education in Engineering and Technology. The institution has increased access to latest education, opportunities for engagement and exchange, collaborative research and innovation for the students and faculties as mentioned in the above tables. BKBIET Pilani provides inclusive, supportive, and enriching environment. The UG program in Computer Science & Engineering is accredited by NBA (up to 30 June 2024).

The institute is spread over a sprawling area of 18.01 Acre with lush green lawns, beautiful landscape, Aesthetic Architectural, and high-graded infrastructure. The environmentally friendly ambiance of the institute provides an excellent learning and research ambiance. The campus is fully residential providing many benefits including school education to wards of the faculty and staff. The students are housed in clean hygienic hostels separately for girls and boys. Residential facilities can accommodate 70 number of faculty and staff and hostel capacity is boys 604 and girls 225. To meet the daily needs of the students and faculty/staff, 2 cafeterias and 1 grocery store are located within the campus. Also, facilities like ATM, Amphitheatre with capacity of 1500, playgrounds, gymnasium, Medical Centre, Temple, Guest house for Parents of the student, RO water facilities and open areas are available in the Campus.

The institution is conscious about sustainability and environment, therefore, has adequate provision of water harvesting, solar energy plant, backup support (capacity 405 KVA), internet with bandwidth (300 mbps).

The institutional premises is located in a campus comprising of other institutions also namely, Birla Technical Training Institute (Diploma & ITI), B K Birla Institute of Higher Education. BKBIET Pilani have dedicated buildings namely BPTRC (Birla Professional Training and Research Centre) and Gandhi Learning Centre, ABTRC (Aditya Birla Training and Research Centre) for R&D activities. Senior and dedicated faculties impart training at these learning and research centres. The students are also provided exposure to scientific research and in turn is made industry ready. Aditya Birla Group (Hindalco Industries and UltraTech Cement) provides annual maintenance contract (AMC) to Institute's Aditya Vikram Birla Memorial- Pilani, Eternal Gandhi Museum (EGM) located at Delhi, Gandhi Peace Centre exhibits and its upgradation at Birmingham, United Kingdom and Gandhi Peace Centre Multimedia exhibits and its upgradation at Atlanta City USA.

BKBIET Pilani offers 7 UG programs namely, Computer Science & Engineering (intake 120),

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Electrical Engineering (intake 60), Electronics & Communication Engineering (intake 60), Information Technology (intake 60), Mechanical Engineering (intake 60), Artificial Intelligence (intake 60) and Computer Science and Engineering (Data Science) (intake 60). Apart from the above, newly approved UG programs in the institution are Electronics Engineering (VLSI Design & Technology) with 60 intakes. There are 2 number of PG programs also offered namely M.Tech in Computer Science & Engineering, M.Tech in Electronics & Communication Engineering (VLSI Design) with each 18-intake capacity.

The Objective and Outcome based education system with continuous assessment system is in place with well- defined program outcomes aligned with the Vision and Mission of the institute and Programs.

The institution has an impressive record of placements, and a significant number of pass outs are currently working in more than 100 reputed and listed corporates and multinational companies in India and abroad and contributing to economy of the country and the world and have been serving over many years. A significant number of students have opted for higher studies. Few have chosen to be entrepreneurs and job providers.

The institute is currently initiating activities to adopt NEP 2020 through a systematic plan.

#### Vision

Excel as an outstanding application-oriented and innovation-driven engineering institute. Inspire future Engineers to apply technology for solving real world challenges.

#### Mission

Create a platform for igniting ingenuity and path-breaking engineering applications for the India of future.

#### Core Values/ Quality Policy

- 1. B K Birla, a visionary, philanthropist, and a known figure in the corporate world in India conceptualized this institution with major objective of surveying young population for both girls and boys to excel in the domains of technology and become productive social beings for upliftment of society.
- 2. Work in an environment of team spirit and encourage healthy competition.
- 3. Provide best of the teaching learning process with latest technology and ICT oriented infrastructure.
  - 4. Encourage and facilitate creativity among students and faculty.

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- 5. Participate in national and international programs leading to knowledge formation, skill development, and positive attitude.
- 6. Create and propagate R&D culture and acquire prominence by encouraging participation of students and faculty.
- 7. Protect and promote national integrity and patriotism.
- 8. The institution has an impressive record of placements with the alumni working in many reputed corporates and multinational companies in India are hereby presented as an example-Aditya Birla Group, ACCOLITE DIGITAL, Alphaa AI, APPCINO, Aptclouds, SECURE METERS, Genus Power, InfoObjects, BYJU's, SYMPHONY, Hexaview, Synopsis, Samsung R&D, TCS, Infosys, Centilytics, GrapeCity, Liferay, Unthinkable solutions, Cappemini, MTX and abroad like BNP Paribus, Panasonic Industry Europe, AUSY, Wakam, Airbus, Tesla, Arcelor Mittal Luxembourg, Amazon UK, The Good Year Tyre & Rubber.
- 9. Birla Professional Training and Research Center have been set up in the institution premises to encourage innovation, creativity and critical thinking among students and faculty.

#### 2. Where we are?

#### **Environmental Scan**

The following paragraphs analyse and assess the environment we exist in, in order to determine the impacting elements and to respond to them.

The new millennium has witnessed unprecedented challenges and opportunities for higher education, arising from the effect of globalization. The Globalization of Indian economy has not only opened wider options for the investment for the Indian industry but has brought in the realization that only the best can survive in the world market, consequently, the realization that quality in products and manpower is the key to success.

Rising prosperity and reach of world media even in a middle-class home which has created awareness and the demand for the latest technology among the consumers in every field, consequently forcing the industry to provide the latest. Thus, the need for skilled manpower to cater to the changing technological needs notwithstanding the advent of multinationals in the country.

The Indian economy is helped greatly with availability of strong workforce in Information Technology. Since IT is the key in today's technical world, the present situation has created much larger avenues of education and training.

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The growth of IT-enabled service businesses in India also indicates that potential of IT and knowledge-based industries extends far beyond the development of software and hardware (India Vision 2020 document). Thus, IT services and management of all types of information will be a powerful engine of job opportunities.

Recent pandemic COVID-19 has led to emergence of virtualization of various teaching related programs as well as the work culture to such an extent that virtual classrooms and teaching in distance mode has become a reality. Most of the institutions are utilizing this opportunity in a more positive way and the hybrid mode of virtual operation and direct interaction with students has enhanced the outreach as well as knowledge formation among students.

# Key Changes and Reforms as envisaged in NEP 2020 planned to be adopted by BKBIET Pilani to transform itself into a world class institution

(Source: Adopted from NEP 2020 document of MHRD)

- Obtaining accreditation by NAAC & NBA as a pre-requisite to adopting NEP 2020.
- Obtaining institutional autonomy and thereby acquiring status of university.
- Offering multidisciplinary programs by 2027 to ensure holistic development of students with medium of instructions in local and Indian languages and increase the student enrollment.
- Revamping curriculum, pedagogy, assessment, and student support to enhance student experiences, through curricular changes and pedagogy.
- Revising institutional policy and governance relevant to faculty recruitment and research,
- Offer Open Distance Learning (ODL); and all infrastructure and learning materials accessible and available to learners with disabilities.
- With appropriate accreditations and Autonomy evolve into Teaching-intensive University
- Strive to integrate professional and vocational education into program offerings.
- The institution will gradually establish departments in Languages, Literature, Music, Philosophy, Indology, Art, Dance, Theatre, Education, Mathematics, Statistics, Pure and Applied Sciences, Sociology, Economics, Sports, Translation, and Interpretation.
- Provision of holistic and multidisciplinary education will include the flexible and innovative curricula to include credit-based courses and projects in the areas of community engagement and service, environmental education, and value-based education.
- The institution will introduce Environment related courses such as Climate change, pollution, Waste management, Sanitation etc. as well as value-based programs on Ethics, Constitutional and human values etc.

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- The students will be provided with opportunities for internships with local industry, businesses, artists, crafts persons, etc., as well as research internships with faculty and researchers as individuals or collaborative activities aiming to improve employment.
- The institution will make efforts to adopt undergraduate degree with either 3 or 4-year duration, with multiple exit options with appropriate certifications.
- The institution as an autonomous body will register itself in Academic Bank of Credit (ABC) to digitally store the academic credits earned by students so that the degrees from the institution can be awarded taking into account credits earned.
- Institution will offer master's degree programs adopting stipulation of NEP 2020
- Once well-established autonomous university, the institution will establish incubation and technology development center with multidisciplinary approach
- Along with student centric approach, the institution will strive to encourage creativity, adopt continuous assessment and student support system for sustainable learning environment through provision of suitable resources and infrastructure, such as quality libraries, classrooms, labs, technology, sports/recreation areas, student discussion spaces, and dining areas, to ensure that learning environments that could engage and support students to succeed
- Once well established, the institution will strive to internationalize itself through student and faculty exchange programs

## Review of Rajasthan Industrial Development Policy 2019

Industrial Investment and Employment Promotion Policy of Rajasthan Industrial Development Policy 2019 has given emphasis on overall development of the industry and employment which is to be completely comprehended and the opportunity envisaged in the policy will have to be realized by BKBIET Pilani and take benefit for the students and the institution as a whole. The areas listed are given herewith:

- 1. Employment generation Creating opportunities The policy is hinting at contribution to all industrial areas in such a manner that the employment is generated in masses wherein the role of education institutions will cater to the right manpower to occupy right position which will boost the economy of the state.
  - 2 Fiscal incentives Attracting investments Economic benefits and financial support will be offered in different formats of governmental operations which will improve employment with dignified incentives for the students pass out from institutions

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- 3. Ease of doing business Creating a conducive industrial environment Government of Rajasthan committed with the society that the new industrial setups to be established will be done with ease from the point of view of permissions, licensing and certification. Therefore, it will be easy for students to consider entrepreneurial activities and setup new startups with ease.
- 4 Make in Rajasthan Leveraging the success of Make in India like the Central Government, Government of Rajasthan is also considering Make in Rajasthan arrangements for new entrepreneurs and encouraging investors to come from other states and international communities to make in Rajasthan. This is with special reference to manufacturing.
- 5. Skilled Manpower Reaping the benefits of demographic dividend Rajasthan holds eighth position of India's population rank with a population of 5.5%. To reap the benefit of huge demographic dividend alignment of skill as per the current and future industrial needs is crucial. Hence, the policy aims to create avenues for sector specific high-quality manpower based on the principles of Education, Employability, Employment, Economy and Environment will play a vital role and would offer widespread employment at various levels.
- 6 Innovation Promoting Start-Ups State will focus on building a strong eco-system for nurturing innovation and Start-ups that will drive sustainable economic growth and generate large scale employment opportunities for which special policy will be formulated to make compliance under various taxation, labour and environmental laws friendly, flexible and low cost for startups. Therefore, BKBIET will also be offering opportunity to pass-outs as well other section of society to startup in collaboration.
- 7. Micro, Small & Medium Enterprises Ensuring all round industrial growth The Government of Rajasthan is encouraging new entrepreneurs to setup Micro, Small & Medium Enterprises (MSME) with ease, substantial and financial support, and subsidies.
- 8 Sectoral approach The following focus areas have been identified as strength of the state and will be further strengthened. BKBIET Pilani will strive to focus on some of the areas based on the expertise and resources available. The areas identified by the policy are as follows:
  - a. IT/ ITeS industry and IT Start Ups
  - b. Electronics Manufacturing
  - c. Health Care industry

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- d. Automobile Industry
- e. Since the demand of electronics devices is expected to create an electronics market of US\$400 billion by 2020 in India. The policy intends to cater to this huge domestic demand while striving to become a global electronics manufacturing hub by encouraging electronics manufacturing

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#### f.Agro & Food Processing

- g. Dairy
- h. New & Renewable Energy
- i. Handloom & Textile Industry
- j. Export oriented units
- k. Tourism
- 9. Sustainable & Inclusive growth Ensuring clean & balanced distribution of economic growth.
- 10. Investment Promotion and marketing 'Brand Rajasthan'.
- 11. Domestic & Global Environment Gaining from external factors and being responsive to them

#### **SWOC Analysis**

#### **Institutional Strength**

- Well defined Vision & Mission.
- Well-developed infrastructure.
- Qualified and experienced faculty & staff.
- Collaborations with 12 internationally renowned universities and professional bodies/industries provide ample opportunities and support to faculty and students academically.
- Proximity to internationally renowned BITS Pilani provides high morale to teachers and students.
- Curriculum as prescribed by affiliating university is delivered to attain well-defined Program
  Education Objectives (PEOs) and Program Outcomes (POs) along with Program Specific
  Outcomes (PSOs) and Course Outcomes (COs)
- Good academic culture, ambience and working environment leading to high students and faculty satisfaction.
- Campus placements are strong and career counselling for students is well organized and structured.
- Students are given awards and rewards for merit achievement.
- Institute location-accessible to all the Stakeholders.
- Owned by an old reputed industrial house therefore, linked with corporate operating at national and international levels.
- Good Labs & Workshops to meet curricular requirements.

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- Industry training and Software/Soft Skills Training for Students
- Curricular & Co-curricular activities conducted as per norms.
- Large alumni base excelling professionally in many leading organizations with active networking and mentoring
- Laboratories with ICT facilities.
- Inter disciplinary grooming of Students.
- Excellent R&D facilities (Birla Professional Training and Research Centre is in the premises with Three floor building)
- More than 30 Clubs & Technical Societies
- High faculty retentivity
- Lush green campus with RO water facilities
- Global exposure to faculty members
- Associated with various academic projects like:
  - Drone for Chimney of Ciment Industry funded by Keshoram Industries Ltd. Kolkata.
  - Quality Control Software Developed for providing mineral mix in cement industry funded by Keshoram Industries Ltd. Kolkata.
  - Analysis & upgrading of Low-Grade line to Sweetner funded by Keshoram Industries Ltd.
     Kolkata.
  - Logistic marketing and solar optimization funded by Keshoram Industries Ltd. Kolkata.
- Membership of:
  - National Digital Library of India,
  - IEEE, Student Chapter,
  - IEI Local Centre
  - NCC, NSS
  - Active DELNET membership
- Entrepreneur Cell: A separate cell for Entrepreneurship Development in the Institution to create awareness on entrepreneurship and encourage students to be entrepreneurs.
- Faculty conscious of quality, hence actively involved in taking online training programs to keep their knowledge updated.

#### **Institutional Weakness**

- Less number of faculty with Ph.D.
- R&D and consultancy activities are limited.

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Less number of Research Outcomes and Patents

#### **Institutional Opportunity**

- By becoming autonomous, the institute would be able to address the shortcomings under the affiliation system.
- New NEP 2020 gives opportunities for diversification and multi-disciplinary programs offering creating wider reach and avenues of institutional growth.

#### **Institutional Challenge**

- Tough competition in research funding opportunities.
- Availability of quality faculty interested in teaching.
- Recent trends of students not opting for engineering programs except Computer Science
- Affiliating university curriculum becomes obsolete and there is little freedom for faculty to go beyond syllabus due to lack of time.

## Perspective Plans for vital areas of growth envisaged for 5 years starting from 2022 to 2027

## 1. Obtain accreditation both by NAAC & NBA for respective programs

It has been declared mandatory by MHRD, GOI through a Gazette Notification that all higher education institutions imparting general education or technical education will have to undergo the process of accreditation; actually by both NBA & NAAC. NBA is awarded for technical, pharmacy and management programs whereas NAAC is awarded for overall performance of higher education institutions.

Accreditation by NAAC/NBA is a pre-requisite for implementation and undertaking any activities/reforms as envisaged in NEP 2020. The time available to BKBIET Pilani is that all programs must be accredited by 2030. Following is the planned schedule of award of accreditation:

Sr.	Accreditation	Timeframe	Cost Estimate
No.		- 6-	(Rs. in Lakh)
1	Award of accreditation by NAAC to BKBIET	2024	10:00
	Pilani	St. No.	
2	Award of accreditation for 4 technical programs		
	namely:	-8 - \$168°	45 th = 1
	Computer Science Engineering (Accredited by	2024 (renewal)	6.50
	NBA upto 2024)		9

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	Information Technology	2023	6.50
	Electronics & Communication Engineering	2024	6.50
	Electrical Engineering	2026	6.50
	Computer Science in Data Science	2027	6.50
	Artificial Intelligence	2028	6.50
	VLSI Design and Technology	2029	6.50
4	Award of accreditation by NAAC to sister organization namely; BKBIHE & BTTI Pilani.	2027	10.00
5	Merging of BKBIET, BKBIHE, & BTTI Pilani and make it integrated campus to meet the requirements of NEP 2020	2026	25.00

## 2 Upgrade the institution to reach the height of university and enjoy full autonomy The steps involved are as following:

• Preparation of application for UGC for grant of university status with full autonomy

Sr.	Activities for Upgrading to University	Timeframe	Cost Estimate (Rs.
No.	Status		in Lakh)
1	Documentations, permissions, fee etc.		10.00
2	Training of faculty and other institutional managers relevant for smooth establishment and operations of university		10.00
3	Establishment of BOG as per UGC norms and creation of Statutes		10.00
4	Process of recruitment of faculty & staff and various authorities		10.00
5	Expansion of infrastructure and facilities	1	500.00

# 3. Improve infrastructure facilities of existing in BKBIET Pilani with latest technologies comparable to international universities

The university plans to provide world-class facilities and infrastructure along with high quality educational ambience. Some of the major improvisations and improvements needed are listed below:

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Facilities	Details of Facilities	Timeframe	<b>Estimated Cost</b>
			(Rs. In Lakh)
Physical	•Green building	2027	Cost based on bill
infrastructure -	•Roads with walking, & bicycle path		of quantities after
	•Admission & Counselling Area		checking the
	•Classrooms		availability and
	•Counselling rooms		required
	•Strong Room		improvisations
	• Faculty chambers		
	Meeting rooms		
	• Laboratories		
	Computer Centre		
	•Cafeteria		
	•Dining Room		
	•Games & Sports facility		
	• Auditorium		
	•Library/Digital resource centre		
	•Xerox & Printing centre		
	• Hostels		
	•Parking		
	•Office Rooms		
	•Exhibition Hall		
	•Guest House		
	•Faculty Residents		
	•Shops		
ST.	• Hospital	44.	
	•Student recreation facilities		-
44	Yoga & Meditation Centre	200	
Q.M.	•Faculty rooms	423	112
-4	Departmental Libraries		
LEGIS.	•Students Waiting Room (Male)	1 A A	- 167
	•Student Waiting Room (Female)		

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	• Faculty & Staff Quarters		
	• Guest Hostels		
	Research Scholars Hostels		
	•Central Air-Conditioned High-Tech		
	Buildings		
	•Faculty Chamber with attached		
	washroom for each faculty		
	•Studios		
	•Gymnastics		
	•International student centres		
	•Research Park		
	•International Student Hostels		
	•High Tech Playgrounds		
	•Swimming Pool		
	•Shopping Complex		
	•Stadium		
	•Indoor Stadium		
	Botanical Park		
Digital	•Internet usage	2027	Cost based on bil
infrastructure	• Website		of quantities afte
	WhatsApp groups of stakeholders		checking the
	•Google Blogs & Google sites for		availability and
	every course		required
	•Wi-Fi Campus		improvisations
	Online Study material		
	Digital Library		10
	•Digital Publication		
	Paperless office		the.
	Paperless exams		Titlet
200	Online Evaluation		
41.5.	• Website based result announcement	100	, sta
	NAD markscards Facility		

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	•Online admission test		
	•Education ERP		
	•Plagiarism software facility		
	•Online digital magazine & Student		
	publication		
	•Online placement (Project, internship,		
	& final)		
	•Video documentation of each course		
	& each College		
	•Video documentation in UTube		
	•Facebook and Twitter based		
	promotions		
	•Use of ICCT underlying technologies		
	like AI, BA, CC, DS, MB, OC, VR &		
	AR		<
	•Studio for video online classes		
	•Video conference facility		
	•Online open Publication system		
Innovative	•Industry oriented curriculum	2027	Cost based on bill
academic &	•Employability skill focussed		of quantities after
training	curriculum		checking the
Infrastructure	•Speciality & super speciality		availability and
for confidence	professional courses		required
building	•Experienced committed faculty		improvisations
	•Session wise teaching plan		= *
	•Study books prepared as per the		
	syllabus,		
	•Question bank		-
A c	•QB answers as assignments		.>
	Make-up exams	1.50	G-(-4)
	•Value added employability skills	A 1172 212	
	enhancement Papers		
	Experimental learning pedagogy		

	Co-curricular & extracurricular activities		
	•Earn while learn facility & flexibility		
	•Multi-skill development &		
	certification opportunities		
	•Provision of optimum utilization of		
	time to develop liberal arts skills		
	•Provision of opportunities to develop		
	& utilize Research & innovative		
	thinking skills		
	Academic activity to build confidence		
	•Co-curricular activities to mould good		
	character for social benefit		-
	•Special training in Event management		
	& disaster management training		
	•Compulsory Environmental Science		
	Education		
Intellectual	•Research oriented experienced faculty	2027	Cost based on bill
property	members		of quantities after
infrastructure	•API based faculty compensation		checking the
	•Targeted research		availability and
	•Atomic Research centres for each		required
	faculty		improvisations
4, -	•More Ph.D. & post-doctoral research		*
	scholars		
11, 10	•More Faculty members with Ph.D.		
0	•Faculty encouragement for Book	- 12	
	Publications, Research Publications,	YES	
	and Patents	20-1	
	•More conferences (At least two		1: 14
485	conferences per year per College		
	•Student involvement in Research		
	•Industry collaboration & Consultation		0

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	<ul> <li>University Incubation centres</li> <li>University Publication through its own press</li> <li>University publications &amp; Citation service</li> <li>Compulsory patent claim for UG &amp; PG projects in Professional subject areas</li> <li>Faculty Ranking (Annual) system</li> </ul>		
Networked infrastructure	<ul> <li>Collaborations – Horizontal, Vertical &amp; Diversified</li> <li>Alumni association &amp; Networks</li> <li>Industry integrated collaborations</li> <li>Academic Integrated Collaborations</li> <li>Research Collaborations</li> <li>Consultancy Collaborations</li> <li>Placement Collaborations</li> <li>Collaborations for student - Earn While Learn model</li> <li>Collaborations with NGOs &amp; Social service Organizations</li> <li>Membership with National &amp; International Accreditation bodies for Quality &amp; Credibility</li> </ul>	2027	Cost based on bill of quantities after checking the availability and required improvisations

## 4 Improvement of teaching learning processes with virtual learning facilities

The NEP 2020 envisages that greater focus will be on improvement teaching learning process. To facilitate anytime, anywhere learning state of the art virtual learning facilities will be created where learning will be student centric, and teacher's role will be mostly that of information provider and facilitator instead of instructor. The new university will concentrate on latest literature about the teaching learning process. That may include the following and proper training by experts will be given to the teachers in adopting the techniques. Therefore, the teacher training would become a permanent feature of the university.

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- Active learning
- Personalized learning
- Universal design for learning
- Classroom technology
- Project-based learning
- Experiential learning
- Peer teaching
- Inquiry-based learning
- Problem-based learning
- Culturally responsive teaching
- Interdisciplinary teaching
- Gamification
- Flipped Classroom

#### 5. Implementation of all provisions of NEP 2020

The university will be primarily teaching intensive institution with research in focus areas of expertise only. To follow the provisions of NEP 2020, new multidisciplinary programs such as law, pharmacy, arts, fine arts, science, commerce etc. will be offered and the students will have the freedom to design their own program of study based on core and elective credit offerings with multipoint entry which will entail pre-requisite courses requirements, options for testing out, pass not pass courses, non-credit courses, transfer of credits from other institutions etc.

The medium of instructions will include English, Hindi and regional languages.

The duration of bachelors and master's degree programs will be as per the provisions of NEP 2020. Ph.D. programs will also be offered by the university.

Vocational and skill development certificate courses in relevant areas will also be offered during off time for working professionals.

Extensive use of ICT in all programs offering and digitation of administrative operations will form a basis of major transformation.

Collaborative activities with Indian and international institutions as well as relevant industries will be established through appropriate MOUs and avenues of internal revenue will be created.

Academic Credit Bank facilities will be offered to students through MHRD managed ACB.

Time frame: All aspects of the policy implementation will be completed before 2027.

Estimated Cost - Rs. 20.00 Lakh

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## 6. Enhancing collaboration with International Universities:

As per the existing arrangements collaboration with 12 international universities is currently operated which is leading to a large number of benefits such as Faculty Exchange, Student Exchange Research activities, qualification enhancement, joint projects, joints publication of books and research papers. Data about these activities is available in institution record.

Estimated Cost – Rs. 20.00 Lakh

### 7. Enchaining collaboration with National Universities & industries:

As per the existing arrangements and collaboration with 10 national industry & universities is currently operated which provides a good opportunities and exposure to student for industry interaction, internships, live projects, training and jobs. Further, as add on faculty get opportunities for FDP training and research and project support.

Estimated Cost – Rs. 20.00 Lakh

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