



SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

**BHARATIYA VIDYA BHAVAN'S SARDAR PATEL
COLLEGE OF ENGINEERING, ANDHERI WEST
MUMBAI**

**BHAVANS CAMPUS, MUNSHI NAGAR, ANDHERI (WEST), MUMBAI
400058**

<https://www.spce.ac.in/>

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BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Sardar Patel College of Engineering under the management of the Bharatiya Vidya Bhavan, was founded by Kulapati Dr. K.M.Munshi. It was established to meet the growing demand for engineering lent. The college was inaugurated by the first Prime Minister of Independent India, Shri. Pandit Jawaharlal Nehru in 1962. The college is situated in 45 acres of green campus and Andheri (West) in Mumbai.

The college is named after the Iron Man of India, Shri. Sardar Vallabhbhai Patel, an eminent nation builder of independent India. The UGC awarded autonomous status to the Institute w.e.f. Academic Year 2010-11. The college takes up substantial amount of testing and consultancy assignments in the Civil Engineering Department.

The college is among the top five preferred engineering colleges in Maharashtra, as far as first-year engineering admissions are concerned. The college runs three UG, four PG and three Ph D programmes, which are permanently affiliated to the University of Mumbai. The Civil Engineering department of the college has also been recognized as minor QIP research centre since 2012-13. The college has produced a number of graduates with an aptitude for research and leadership qualities. Most of the alumni of this college secured the responsible positions in national or international renowned companies spread all over the world.

The on-campus placement for UG students has been above 90% over the last several years. The students have shown remarkable presence in various national and international Professional events organised by Reputed Professional Bodies and Institutions.

Vision

Sardar Patel College of Engineering (SPCE) aspires to be an institution of national repute that will create professionals with competence and motivate research for the progress of the nation.

Mission

- To impart quality education through time relevant curriculum in academic programs
- To enhance career opportunities for students through industry-institute interaction and value-added courses
- To promote excellence by encouraging innovative ideas and lateral thinking
- To inculcate a sense of discipline and responsibility towards society

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Programmes in the Institute has successfully completed 3 rounds of NBA accreditation.

- Institute received Academic Autonomy in 2010 and received extension of autonomy thereafter for 3 terms.
- The Institute was shortlisted by the Ministry of Education for participation in the prestigious World Bank Funded project, TEQIP-II and TEQIP-III.
- SPCE offers a dynamic and vibrant curriculum which is aligned in terms of the reforms required by the following

1. UGC for CBCS implementation
2. AICTE Model Curriculum (January 2018) for UG and PG programs
3. NBA directives for implementing Outcome-Based Education (OBE)
4. Latest syllabus for national competitive examinations such as GATE
5. Industries/ recruiters
6. Industry 4.0 technology revolution

- Institute has remarkable placements with wide spread of Alumni network.
- Institute has very good blend of Qualified Experienced faculty with young energetic faculty.

Institutional Weakness

- Inadequate admissions in PG programmes
- In-spite of having strong alumni base, the interaction with alumni and financial contribution by the alumni is very less.
- The revenue generated through consultancy and testing activities is much less in Mechanical and Electrical Engineering departments compared to the Civil Engineering Department.

Institutional Opportunity

- To collaborate with reputed foreign universities.
- Demand for new PG programs and specializations
- Rising demand from industry for consultancy and testing
- Faculty and staff development through exposure to world-class academic and research
- Best Incubation & Entrepreneurial Cell.

Institutional Challenge

- Globalization in Engineering Education.
- Keeping pace with rapid changes in technology.
- Attracting students to participate in sports and cultural activities.
- Extension Activities with the collaboration of government and private organizations.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

SPCE offers a dynamic and vibrant curriculum scheme that has absorbed most of the vital inputs from its various stakeholders. The proposed curriculum is aligned in terms of the reforms suggested by the following agencies/ stakeholders.

1. UGC for CBCS implementation
2. AICTE Model Curriculum (January 2018) for UG and PG programs
3. NBA directives for implementing Outcome-Based Education (OBE)
4. Latest syllabus for national competitive examinations such as GATE
5. Industries/ recruiters

Students are motivated to register for SWAYAM / NPTEL online courses which provides greater academic flexibility. SWAYAM / NPTEL course titles are included in the Grade sheet of students who successfully complete these courses. The institute proposes B. Tech. with Honours degree subject to fulfilling the requirements and subject to the approval of Mumbai University. To offer more freedom of choice to students, Track based choice of professional electives and Open electives at institute level have been introduced in the curriculum. The curriculum proposes a Start-up course to encourage entrepreneurship.

To focus on skill improvements of students, Course Outcomes based on specific skills have been included in the related course contents. The curriculum proposes “Engineering System Development” as an Open elective based on Govt of India’s Unnat Bharat Abhiyaan and Govt of Maharashtra’s Unnat Maharashtra Abhiyaan [UBA –UMA]. This course is in alignment with Vision-Mission Statements of the institute. The curriculum includes OHSAS, Fire and Safety engineering as an open elective based on the needs of the industry. The curriculum includes Ubuntu course to add a flavour of social service within the curriculum, in alignment with Vision Mission Statements of SPCE

To increase the employability of the students, Courses to be taught by industry have been introduced in the curriculum. The new curriculum will strongly equip the graduates with a unique set of skillsets thus improving their employability. This will certainly attract better recruiters and create a positive impact on placements.

The curriculum is designed with quality inputs from academic council, Board of studies, Industry Consultation Committees, students council members and other stakeholders considering the guidelines of AICTE, NPIU, UGC, NBA.

The Curriculum is reviewed and updated periodically based on feedback received from the above stakeholders.

Teaching-learning and Evaluation

SPCE involves itself in active learning with students from diverse profiles. Hence, various methods like Group Discussions, Quizzes, Seminars, Assignments, Mini-projects, Industry/Field visits are implemented by faculty besides classroom teaching.

Specialized Industrial courses conducted by Industry experts have been launched. MoU’s have been signed with reputed Industries like Siemens to provide specialized training to students. Project-based learning has been especially emphasized. Field projects have been taken under UMA and UBA and a specific course on Engineering System Development has been introduced to cover the same. A proper mix of all these methods helps to develop technical and professional skills in students. The faculty motivates the students to learn through NPTEL courses. The College has a rich collection of books, national and international journals,

magazines, CDs in different areas which are used in teaching-learning processes.

SPCE has well-qualified faculty many of whom have experience in academic as well as industrial research. Faculty members are sent to attend Faculty Development Programmes, Conferences, Workshops organized by other premier Institutions/Universities. SPCE provides the necessary infrastructure, teaching aids, computer labs, LCD projectors, Smartboards, etc. in order to ensure effective implementation of the best teaching practices in class.

Current Evaluation Pattern: Theory Courses

In-semester Evaluation of two tests of 20 marks each with weightage of 40 % End Semester Examination of 100 marks with weightage of 60%

This ensures continuous evaluation through the semester

Laboratory Courses

Continuous evaluation of the laboratory courses is carried out throughout the semester.

SPCE has clearly stated the learning objectives in terms of Program Educational Objectives- PEOs and learning outcomes (in terms of Program Outcomes- POs for each program.) The Question Paper has been designed to show CO/ Bloom's Taxonomy and PI for every question. The percentage of CO attainment feedback has been collected for every course in alignment with CO/PO mapping requirements.

SPCE students have shown very good results and the pass percentages are quite satisfactory. Remedial coaching is conducted every semester for the academically weaker students. There is a mechanism to obtain online in-semester feedback from students for teaching. Based on the feedback analysis, counselling is provided to individual faculty.

Research, Innovations and Extension

SPCE has been very active in promoting R&D activities at all the departments. To create a congenial research culture in the institute. The Civil Engg. Dept. has been recognized as a QIP Ph.D. research centre by AICTE, New Delhi. Two full-time students have already joined under QIP. The college is also a research centre recognized by Mumbai University. Under this, more than 40 candidates are registered for their doctoral programs. There is a good research culture in the college. Many faculty members have undertaken research work with funds from AICTE, SERB, DST, TEQIP, etc. Students are encouraged to carry out research activities through simulation and experimentation and analyse the results critically. They are further motivated to publish a research paper in a journal or conference on their work. They are financially supported by the College to attend the conferences to present the research papers. Postgraduate students are encouraged to take up research projects in reputed industries. A National Level research Symposium is conducted every year to promote research activities.

Workshops have been conducted on innovation and IPR, Ideation, Start-up, etc to encourage the spirit of innovation among the students. Seed money has been given as research grants under TEQIP.

The college library has a rich collection of research publications. The Library subscribes research journals,

periodicals, and e-journals to undertake inter-disciplinary research to cater to the needs of various departments. Turnitin anti-plagiarism software is available in the library.

The various departments e.g. Civil Engineering, Mechanical Engineering Electrical Engineering, etc are active in carrying out testing and consultancy work. As per policy, 50% of the total revenue generated is shared with the Consultancy team, and 50% remains with the Institute for infrastructure support and other overheads. In case of testing activities, 50% of the total revenue generated is shared with the testing team, and 50% remains with the Institute for infrastructure support and other overheads.

Internal resource generation (IRG) through testing and consultancy work is good. It is proposed to further improve on these activities by advertising the available infrastructural facilities to interested stakeholders.

Infrastructure and Learning Resources

The development and augmentation of infrastructure is an ongoing process, keeping in view the needs for up-gradation and addition in consonance with the changes and needs of the system. Smartboards are used by professors for Teaching-learning.

The Institute main building and the hostels are equipped with Wi-Fi facilities with internet leased lines with bandwidth of 32 Mbps. Few faculty members have prepared e-learning material which is also made available on YouTube. Professor of Mathematics has prepared the SEAM ICT tool (SEAM App) as a product of SEAM eLearning, a start-up by himself. Professor at Mechanical Engineering developed Augmented Reality Tool based course material for Engineering Graphics.

The college arranges various on-line webinars and other technical events to enable the student for better self-learning.

CCTV camera systems have been installed in and around main building and in hostel premises. The College has a very good setup for ICT facilities. The information pertinent to the College and important notifications are displayed on the college website (www.spce.ac.in). Most of the computing infrastructure including the website is maintained by the college.

The college also has hostel facilities for boys and girls. Total 66 girls and 307 boys are accommodated in the hostels. A separate mess facility is provided to girls and boys. The current hostel building is maintained regularly and renovated as per the needs. A proposal for construction of new hostel building is in process.

Institute has girls' common room, ramps and washrooms for "Diwyangjan", Updated library, AC reading room, Conference Hall, well equipped laboratories, Green and Environment-Friendly campus with nature's park, canteen, biometric attendance monitoring system, computing facilities with the necessary software, and ample parking facility.

Student Support and Progression

SPCE strives to provide the best possible facilities and opportunities for the growth and development of its students. It has Scholarship facilities for deserving students. Scholarship to SC/ST/OBC, lower-income, and Minority students are being provided by the state govt. The institute also focuses on enhancing student

capabilities by providing guidance for competitive exams, career-counselling, soft skill development, remedial coaching, etc. The college has an anti-ragging committee consisting of male and female faculty members to prevent harassment of students. There are also two counsellors on the campus to ensure their mental well-being.

Students are active participants in professional bodies like ISHRAE, ASME, SAE, IIIE, IGBC, IET, etc. The students are encouraged to take an active part in various activities like industry visits, workshops, seminars/conferences, paper presentations, etc. The institute also has a Start-up Cell, which conducts ideation workshops, start-up conclaves, and motivational talks to support entrepreneurial activities. The various departments organize expert lectures from industry persons, academicians, alumni, etc. This is reflected in the excellent placement statistics where almost 90% of the students opting for placement are placed successfully. Reputed companies like Siemens, Tata Motors, L&T, Mahindra, etc. feature among our top recruiters. Around 25% of the students also appear in various State levels, National and International examinations and more than 95% of them clear those exams successfully.

Institute offers value-added non-technical courses like UBUNTU, yoga, Self-defence, Financial literacy, integrated self-management, photography, etc. for all-round progression of the students.

Apart from academics students also take part in various sporting and cultural events that promote their all-round development. The college also ensures the active participation of students in the academic and administrative decisions of the college. The student council consisting of meritorious students plays an active role in organizing important events in college. There are also representatives of students in the academic council and the Subject boards.

The institute has been making efforts to reach out to its Alumni and many illustrious alumni have given their contributions via suggestions in curriculum, expert talks and workshops, appearing as judges for various technical competitions, etc. Alumni meets are also organized to facilitate student-alumni interactions.

Governance, Leadership and Management

The Vision and Mission of SPCE are reflected in its governance and leadership. The administrative structure ensures decentralization and participative management. The Governing Body of the Institute is constituted as per the UGC guidelines and focuses on evolving and sustaining quality policy and plans. The GB lays guidelines and policy parameters that the Principal executes through its staff.

The GB, Academic Council and Board of Studies induct professionals from reputed academic institutions like IITB, VJTI, and industries like L&T, Godrej, Siemens, etc. Administrative committees regularly meet to monitor the improvements in their respective domains. Further, SPCE has an Institution Development Committee comprising of Principal, Vice-Principal, Academics, Finance, R&D Deans, HoDs, CoE, Librarian, etc. IDC meets every Monday to identify issues, suggest solutions and plan further improvements. SPCE has been adopting e-governance practices in various areas of operation for efficient performance and transparency.

Faculty members are encouraged to organize seminars and conferences, prepare research proposals and consultancy assignments. They are given financial support under TEQIP and from IRG by the Institute. Training programs are organized for non-teaching staff members. Additionally, there are welfare schemes like a group medical insurance, staff welfare fund, etc. Due to dynamic leadership and best management practices, SPCE was recognized as an outperforming institute receiving financial assistance of Rs. 10 Crore with an

additional grant of Rs. 2.5 Crore in TEQIP-II and Rs. 7.00 Crore in TEQIP-III. Under TEQIP-II and TEQIP-III institute has implemented various academic and R&D activities for students, staff and faculty members.

Quality assurance processes are an integral part of institutional policy. Hence, SPCE established an Internal Quality Assurance Cell (IQAC) comprising of representatives from industry and academia.

SPCE has engaged external statutory auditors for external and an internal auditor to conduct periodical internal audits. SPCE receives grants from state government and other agencies for various projects and schemes.

Examination audits, data audit, performance audits are conducted regularly and student feedback regarding Teaching methods and course content are taken regularly and shared with stakeholders for Quality improvement.

A self-appraisal report is submitted by the faculty and staff at the end of the academic year which is analysed by the respective higher authority. Good performers are encouraged and the poor performers are counselled and inspired to do better

Institutional Values and Best Practices

Being a part of the Bhartiya Vidya Bhavans trust, SPCE follows its core values and believes in its slogan “*Let noble thoughts come to us from every side*”. The Institute treats all the students, staff and supporting staff equally. The Institute has always paid great attention to promote gender equity. In our institute, all academic and non-academic committees of the college have a good representation of both the genders. The institute has a student welfare and women development cell on the campus to empower girl students. Facilities such as girls’ common room and counselling, etc. are also available.

The 45 acres of green land of the campus is well maintained. The institute is environmentally conscious and adopts several green initiatives such as:

- Increased use of LED lighting.
- Solar water heaters in hostels.
- Rainwater harvesting system
- Well defined strategies to handle solid, liquid and e-wastes.
- Promotion of E-documentation to save paper

The campus has also been made friendly for Divyangjan with facilities like ramps, rails, etc. The students are also given adequate support during examinations.

The institute strives to promote human values and professional ethics by conducting specific value-added courses like Ubuntu, Indian Knowledge Traditions, etc. apart from regular talks and workshops on these topics. The institute also celebrates the birth anniversaries of inspiring personalities and organizes specific events to spread awareness about their lives.

The Institution maintains complete transparency through regular financial, administrative, and Exam audits. The examination process is made more transparent through a robust grievance redressal mechanism.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	Bharatiya Vidya Bhavan's SARDAR PATEL COLLEGE OF ENGINEERING, ANDHERI WEST MUMBAI
Address	Bhavans Campus, Munshi Nagar, Andheri (West), Mumbai
City	Mumbai
State	Maharashtra
Pin	400058
Website	https://www.spce.ac.in/

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal(in-charge)	M. M. Murudi	022-26289777	9969259751	-	dean_acad@spce.ac.in
IQAC / CIQA coordinator	Anupa Sabnis	-	9821555240	-	anupa_sabnis@spce.ac.in

Status of the Institution	
Institution Status	Grant-in-aid

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
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Date of Establishment, Prior to the Grant of 'Autonomy'	01-01-1962
Date of grant of 'Autonomy' to the College by UGC	01-01-1970

University to which the college is affiliated		
State	University name	Document
Maharashtra	University of Mumbai	View Document

Details of UGC recognition		
Under Section	Date	View Document
2f of UGC	24-10-2016	View Document
12B of UGC	24-10-2016	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	15-05-2023	12	Extended Annually

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Bhavans Campus, Munshi Nagar, Andheri (West), Mumbai	Urban	5	14639.38

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/ Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Civil Engineering Department, Civil Engineering	48	HSC	English	60	60
UG	BTech,Electrical Engineering Department, Electrical Engineering	48	HSC	English	60	60
UG	BTech,Mechanical Engineering Department, Mechanical Engineering	48	HSC	English	60	60
PG	Mtech,Civil Engineering Department, Construction Management	24	B.Tech	English	18	18
PG	Mtech,Civil Engineering Department, Structural Engineering	24	B.Tech	English	18	18
PG	Mtech,Electrical Engineering Department, Power Electronics and Power Systems	24	B.Tech	English	18	0

PG	Mtech,Mechanical Engineering Department, Thermal Engineering	24	B.Tech	English	18	0
PG	Mtech,Mechanical Engineering Department, Machine Engineering	24	B.Tech	English	18	0
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering Department,	60	M.Tech	English	45	1
Doctoral (Ph.D)	PhD or DPhil ,Electrical Engineering Department,	60	M.Tech	English	10	6
Doctoral (Ph.D)	PhD or DPhil ,Mechanical Engineering Department,	60	M.Tech	English	60	1

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	8				15				36			
Recruited	4	0	0	4	7	2	0	9	17	12	0	29
Yet to Recruit	4				6				7			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				120
Recruited	64	10	0	74
Yet to Recruit				46
Sanctioned by the Management/Society or Other Authorized Bodies				27
Recruited	20	7	0	27
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				34
Recruited	33	1	0	34
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	5	0	0	6	1	0	7	4	0	23
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	1	2	0	13	7	0	23
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties					
Number of Visiting/Guest Faculty engaged with the college?	Male		Female		Total
	0	0	0	0	0

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0
PG	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	71	83	89	93
	Female	36	39	36	34
	Others	0	0	0	0
ST	Male	29	44	43	37
	Female	6	13	13	12
	Others	0	0	0	0
OBC	Male	149	165	178	167
	Female	58	59	65	59
	Others	0	0	0	0
General	Male	351	382	396	374
	Female	93	94	110	114
	Others	0	0	0	0
Others	Male	87	85	94	89
	Female	33	32	30	40
	Others	0	0	0	0
Total		913	996	1054	1019

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Civil Engineering Department	View Document
Electrical Engineering Department	View Document
Mechanical Engineering Department	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	Multidisciplinary/ interdisciplinary subjects were present in the syllabus.
2. Academic bank of credits (ABC):	Recently we have started the process for creating

	login IDs of the students for ABC.
3. Skill development:	The college focuses on the skill development of the students, and for the same many capability enhancement programs are conducted.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	During the pandemic, all the events were conducted online along with a regular teaching-learning process. For the integration of Indian Knowledge System various days are celebrated and cultural events are conducted.
5. Focus on Outcome based education (OBE):	The college has defined various outcomes and formulated a mechanism for calculating attainment of various outcomes.
6. Distance education/online education:	During the pandemic teaching-learning process is carried out in online mode only but college is yet to take steps regarding distance/ online education.

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	No
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	No
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	Nil
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	Nil

5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	Nil
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Extended Profile

1 Students

1.1

Number of students on rolls year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
913	996	1054	1019	1020
File Description		Document		
Institutional data in the prescribed format (data		View Document		

1.2

Number of final year outgoing students year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
249	273	285	287	306
File Description		Document		
Institutional data in the prescribed format (data		View Document		

2 Teachers

2.1

Number of full time teachers year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
42	44	44	45	45
File Description		Document		
Institutional data in the prescribed format		View Document		

2.2

Total number of full time teachers worked/working in the institution (without repeat count) during last five years:

Response: 45

File Description	Document
Institutional data in the prescribed format	View Document

3 Institution

3.1

Total expenditure excluding salary year wise during the last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
112.65	88.35	160.52	89.96	99.47

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1

Curricula developed and implemented have relevance to the local, regional, national, and global developmental needs, which is reflected in the Programme outcomes (POs) and Course Outcomes(COs) of the Programmes offered by the institution

Response:

The UG/PG program’s curricula have been formulated in conformance with the guidelines of AICTE, affiliating university, involving the stakeholder’s feedback and are in tune with the vision and mission of the Institution to meet the local/ national/ regional/ global developmental requirements of the society. The institution makes every possible effort to produce good quality engineers to meet the demand of distinct industries like infrastructural development, manufacturing, information technology etc, The Graduate Attributes are adopted as Program Outcomes (PO) as specified by NBA, New Delhi. Program Specific Outcomes (PSO) for each program has been formulated to assure the attainment of domain specific knowledge and skills in relation with course outcomes. The curriculum is formulated in tune with the PO and PSO and is modified at regular intervals by the Board of Studies of each program.

To ensure better employability for the students, training in technical and soft skills is also imparted to the students. This training involves training in communication skills, quantitative and qualitative reasoning, logic and aptitude. Training in the latest software and technologies is offered to the students under technical skills. Self-learning is promoted through credit transfer facilities from NPTEL/ MOOCS courses.

The mandatory audit points are required to be earned by the students for personality development. Here, students are encouraged to participate in technical events, quizzes as a part of co-curricular activities. They also participate in sports and cultural events as a part of extracurricular activities.

Increased placements, enhanced employability, and students securing admissions into higher education institutions, both in India and abroad demonstrate the impact of the effective and productive curriculum design and development.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

1.1.2

The programmes offered by the institution focus on employability/ entrepreneurship/ skill development and their course syllabi are adequately revised to incorporate contemporary requirements

Response:

The curricula of the programmes offered by the institution are framed/revised using the philosophy and methodology as explained in 1.1.1. The curricula of the programmes offered by the institution focus on employability/entrepreneurship/skill development in addition to providing the basic conceptual knowledge of the respective branch of engineering and interdisciplinary/multidisciplinary expertise. It can be seen from the curriculum and detailed syllabus available on institute's website. For ready reference, the program wise list of courses that focuses on employability/entrepreneurship/skill development is attached as additional information. There are around **53** courses focus on employability/entrepreneurship/skill development. The count of program-wise courses that focuses on employability/entrepreneurship/skill development is as given below.

Sr.No	Program	Number of course that focus on employability/ entrepreneurship/skill development
1	B. Tech (Civil Engineering)	12
2	B. Tech (Electrical Engineering)	10
3	B. Tech (Mechanical Engineering)	12
4	M. Tech (Civil - Construction Management)	4
5	M. Tech (Civil- Structural Engineering)	4
6	M. Tech (Electrical- Power Electronics and Power Systems)	3
7	M. Tech (Mechanical- Thermal Engineering)	4
8	M. Tech (Mechanical- Machine Engineering)	4

In addition to regular courses in the curriculum, institute organises various value-added courses/programs to enhance the employability/ entrepreneurship/ technical skills of the students.

File Description	Document
Upload Additional information	View Document

1.2 Academic Flexibility

1.2.1

Percentage of new courses introduced out of the total number of courses across all programmes offered during the last five years

Response: 50.26	
1.2.1.1 Number of new courses introduced during the last five years:	
Response: 191	
1.2.1.2 Consolidated number of courses offered by the institution across all Programmes (without repeat count) during the last five years :	
Response: 380	
File Description	Document
Minutes of Board of Studies meeting clearly specifying the syllabus approval of new courses	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.3 Curriculum Enrichment

1.3.1		
Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum		
Response:		
<p>The curricula of the programmes offered by the institution are framed/ revised using the philosophy and methodology as explained in 1.1.1. The curricula of the programmes offered by the institution integrates cross-cutting issues relevant to Professional Ethics, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020. It can be seen from the curriculum and detailed syllabus available on institute’s website. For ready reference, the program wise list of courses that focuses on Professional Ethics, Human Values, Environment and Sustainability and other value is given below. There are around 45 courses focus on these issues.</p>		
Sr.No	Program	Number of course that focus on Professional Ethics /value framework/Human Values, Environment and Sustainability, NEP – 2020

1	B. Tech (Civil Engineering)	16
2	B. Tech (Electrical Engineering)	6
3	B. Tech (Mechanical Engineering)	7
4	M. Tech (Civil - Construction Management)	3
5	M. Tech (Civil- Structural Engineering)	4
6	M. Tech (Electrical- Power Electronics and Power Systems)	3
7	M. Tech (Mechanical- Thermal Engineering)	3
8	M. Tech (Mechanical- Machine Engineering)	3

File Description	Document
Upload Additional information	View Document

1.3.2

Number of certificate/value added courses/Diploma Programmes offered by the institutions and online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms (without repeat count) where the students of the institution have enrolled and successfully completed during the last five years.

Response: 175

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.3.3

Percentage of programmes that have components of field projects / research projects / internships during the last five years.

Response: 100

1.3.3.1 Total Number of programmes that have components of field projects / research projects / internships (without repeat count) during the last five years

Response: 11

1.3.3.2 Total Number of programmes offered (without repeat count) during the last five years	
Response: 11	
File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.4 Feedback System

1.4.1	
<p>Structured feedback for curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc., and Feedback processes of the institution may be classified as follows:</p> <p>Response: A. Feedback collected, analysed, action taken & communicated to the relevant bodies and feedback hosted on the institutional website</p>	
File Description	Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link of institution’s website where comprehensive feedback, its analytics and action taken report are hosted	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1

Enrolment percentage

Response: 92.96

2.1.1.1 Number of seats filled year wise during last five years (Only first year admissions to be considered)

2022-23	2021-22	2020-21	2019-20	2018-19
231	214	270	270	270

2.1.1.2 Number of sanctioned seats year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
270	270	270	270	270

File Description

Document

Institutional data in the prescribed format (data template)

[View Document](#)

2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

Response: 92.89

2.1.2.1 Number of actual students admitted from the reserved categories in the first year of the programme year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
115	110	135	132	135

2.1.2.2 Number of seats earmarked for reserved category as per GoI/State Govt. rule year wise

during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
135	135	135	135	135

File Description	Document
Institutional data in the prescribed format (data template)	View Document

2.2 Catering to Student Diversity

2.2.1

The institution assesses the learning levels of the students and organises special Programmes to cater to differential learning needs of the student

Response:

Classification of students: In order to provide an appropriate level of attention, students are classified into normal learner, fast/advanced and slow learners based on their performance in first in semester examinations (ISE-I or MSE). The criteria to identify learning levels are decided by concerned department and the same is informed to students by displaying notice on notice board. Each department take necessary action by paying special focused attention on slow learners for their appropriate development to tune them with other students while fast learners are advised to maintain the pace of their learning and develop the ability of out of box thinking by learning the things beyond curriculum.

Slow Learners: Remedial classes are conducted for slow learners where individually focused attention is on slow learners. The remedial classes/extra lectures are scheduled beyond the regular teaching hours and the same is informed to students well in advance to make it convenient to attend the lectures regularly. Teachers are directed to pay personal attention on all such slow learners and help them to understand the concepts of subject using vernacular language or Hindi whichever is suitable for that student. Mentors keenly observe the academic performance to assist the student by resolving their issues that affect their ability to learn. Animated videos, PPTs, simplified learning materials are provided to students.

Advanced Learners: Advanced learners are encouraged to participate in cocurricular activities, students' development programs, etc. They are encouraged to learn new technologies, develop projects, attend training programs and competitions, participate in National and International Paper Presentations, etc. They are also guided to take up additional courses viz. NPTEL courses. Some of the advanced learners used to teach/guide some of the slow learners.

2.2.2

Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 21.74

2.3 Teaching- Learning Process

2.3.1

Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experience and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Response:

The institute believes that student is focal point of any institute hence it ensure that student-centric methods are effectively used in regular academic practices as it makes the students more self-confidant and self-motivated and learning as interesting and effective. During course plan development, faculty members plan for suitable student-centric learning methods in addition to the conventional methods to enhance the learning experiences of the students. Lectures and laboratory sessions are planned, designed and delivered using pedagogy techniques [with the help of NPTEL assignments] which encourage students to gain knowledge through experiences and activities. While conducting lectures and practical faculty members use learning in group, learning by practice, analogical and experimental approach, project development etc. These techniques have direct impact on improving the understanding level, communication skills, problem-solving skills, listening skills etc. Faculty members take more effort into making the learning activity more interactive by adopting the below-mentioned student-centric methods.

Experiential Learning: The institution imparts the following experiential learning practices.

- Laboratory sessions for laboratory courses: Most of the circuit laboratory experiments/practical are conducted on breadboard [Students need to design logical circuit on paper and build/troubleshoot it on breadboard] rather than using ready kits.
- Hardware output is compared with simulation output.
- Industrial training, Internship and industrial/field visits, industrial lectures to expand the knowledge on market trends.
- Add-on Courses on latest technologies.
- Project development.

Participatory Learning: The institution imparts the following participative learning practices to enhance creativity of the students and to improve their ability to work in a group/team.

- Tech Fest/Project Expo/Poster presentations
- Group Discussion
- Role Play
- Quiz
- Technical Seminar
- Presentation
- Periodical industrial/field visits in group
- Co-curricular and extra-curricular activities/contests

Problem-solving methods: The curriculum of all programs is designed to make students ready to solve real world problems. The institution imparts the following problem solving learning practices to enhance their problem solving ability.

- Practical Sessions to get hands-on experience
- Quiz Sessions
- Open ended practical

- System design related problems
- Project, mini project
- Industrial training, internship, industrial lectures

Use ICT- enabled tools: To nurture the student-centric practices by use of ICT tools, the institution has created many advanced centres like computer centre, e content development centre and language lab, etc. All the classrooms of institute ICT enabled classrooms with the wi-fi facility, LCD projector facility and smart board is available in one classroom of each department. The institution takes significant efforts to motivate the faculty members to use ICT tools and e-resources to transform conventional teaching process to student-centric process. The faculty members deliver curriculum content using innovative and creative ICT tools such as MOOCs, Moodles, NPTEL videos, PPT, You-tube video, online classes, etc to cater the attention, interest, curiosity, and passion in their learning activity.

File Description	Document
Provide Link for Additional Information	View Document

2.3.2

The institution adopts effective Mentor-Mentee Schemes to address academics and student-psychological issues

Response:

Mentor Mentee Program helps to bridge the gap between expectations and ground reality. It is an essential component for a successful career of students. Mentoring provides students emotional and instrumental support, guidance, encouragement and better environment in college. A mentor plays a vital role in nurturing students and has a positive impact on students' persistence and academic achievement. A mentee can approach his/her mentor for both educational and personal guidance. It is conducted to help the students to strengthen their varied capabilities and to build an interpersonal relationship between the faculties and students.

Mentoring System: Mentor mentee system at this institute is a structured programme in which each faculty is assigned with the task of mentoring about 20-30 students. In general, specific time is allotted in regular time table for mentor – mentee meeting. In addition, student is free to contact and discuss the problem with his/her mentor as and when required. For the smooth process all mentors are directed to

maintain the mentoring log book to keep a confidential comprehensive record of their mentee's activities, academic and cocurricular achievements, parents visit, group discussion or individual discussion of mentee/mentees with mentor, etc. During the interaction, Mentors document their observations and develop a shared action plan to guide the students to enhance their professional growth. In addition, at the end of each academic year, mentors once again, assess their mentees and a final report is submitted to the Principal through HoD.

File Description	Document
Provide Link for Additional Information	View Document

2.3.3

Preparation and adherence of Academic Calendar and Teaching plans by the institution

Describe the Preparation and adherence to Academic Calendar and Teaching plans by the institution.

Response:

Academic Calendar: The Institute follows a well-planned academic calendar. It provides adequate balance between academic and no- academic activities, teaching and examination schedule. The dean academics prepares the draft academic calendar before the beginning of every academic year. It is discussed in Academic Program Evaluation Committee (APEC) meeting and Examination Committee (EC) meeting and suggestions which are accepted are incorporated in that academic calendar by dean academics and submitted to Academic Council (AC) for final approval. It is discussed in the AC meeting and approved with or without any changes. The approved academic calendar is displayed on the department notice boards as well as on the college website. Academic calendar mentions the commencement and end date of semester, schedule of In Semester Examination (ISE)/Mid Semester Examination (MSE), detailed schedule of Internal Continuous Evaluation (ICA), deadline/slot for submission of term work, dates for End-Semester Examinations (ESE), Re-examination, vacation slot, slots for sports, cultural activities, etc. Academic calendar for first, second, third year and fourth year of UG program and first, second year of PG program may vary due to delay in centralized admission process of first year of UG/PG programs and second year of UG program. Therefore, separate academic calendars are prepared for I/II & III/IV year UG programs and I & II year

PG program. Academic calendar for all years are available on institute's website.

The college strives hard to adhere to the academic calendar for conduction of various academic and non-academic activities and there is rare chance of variation in implemented and planned academic calendar except the period of COVID 19. In addition to institute level academic calendar, all departments prepare their own academic calendar for all academic and non-academic department level activities including ICA.

File Description	Document
Provide Link for Additional Information	View Document

2.4 Teacher Profile and Quality

<p>2.4.1</p> <p>Average percentage of full time teachers appointed against the number of sanctioned posts year wise during the last five years</p> <p>Response: 100</p>											
<p>2.4.1.1 Number of sanctioned posts year wise during the last five years</p> <table border="1"> <thead> <tr> <th>2022-23</th> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> </tr> </thead> <tbody> <tr> <td>42</td> <td>44</td> <td>44</td> <td>45</td> <td>45</td> </tr> </tbody> </table>		2022-23	2021-22	2020-21	2019-20	2018-19	42	44	44	45	45
2022-23	2021-22	2020-21	2019-20	2018-19							
42	44	44	45	45							
File Description	Document										
Institutional data in the prescribed format (data template merged with 2.4.3 and 2.4.4)	View Document										

<p>2.4.2</p> <p>Percentage of full time teachers with Ph.D./D.Sc. / D.Litt./ L.L.D during the last five years</p> <p>Response: 53.33</p>	
<p>2.4.2.1 Number of full time teachers with <i>Ph.D./D.Sc. / D.Litt./ L.L.D</i> during the last five years</p> <p>Response: 24</p>	
File Description	Document
Institutional data in the prescribed format (data template merged with 3.2.3 and 3.4.2)	View Document

<p>2.4.3</p> <p>Average teaching experience of full time teachers (Data to be provided only for the latest completed academic year, in number of years)</p> <p>Response: 20.1</p>	
--	--

2.4.3.1 Total teaching experience of full-time teachers as of latest completed academic year

Response: 844

File Description

Document

Institutional data in the prescribed format (data template merged with 2.4.1 and 2.4.4)

[View Document](#)

2.4.4

Percentage of full time teachers working in the institution throughout during the last five years

Response: 100

2.4.4.1 Number of full time teachers worked in the institution throughout during the last five years:

Response: 45

File Description

Document

Institutional data in the prescribed format (data template merged with 2.4.1 and 2.4.3)

[View Document](#)

2.5 Evaluation Process and Reforms

2.5.1

Average number of days from the date of last semester-end/ year- end examination till the last date of declaration of results during the last five years

Response: 16.6

2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
16	21	18	7	21

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5.2

Percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0.62

2.5.2.1 Number of complaints/grievances about evaluation year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
5	3	12	4	7

2.5.2.2 Number of students appeared in the examination conducted by the institution year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
913	996	1054	1019	1020

File Description	Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5.3

IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA)/Formative Assessment have brought in considerable improvement in Examination Management System (EMS) of the Institution

Describe the examination reforms with reference to the following within a minimum of 500 words

- Examination procedures
- Processes integrating IT
- Continuous internal assessment system

Response:

(A) Examination Procedures:

- Academics and examinations are administered by Academics and Examination Cell (AEC) as per the autonomy rules and examination rules approved in examination committee and/or academic council.
- Data required to conduct examination is huge and hence it is necessary to use database management information system for the processes involved in taking examinations.
- Institute has well developed and customized MIS for examination and declaration of result.
- Institute conducts End Semester Examinations (ESEs) including re-examination at institute level in one Academic Year and all pre and post examination activities are through MIS (online).
- Time-table and hall allocation for MSE and ESE are prepared and circulated to Departments.
- Departments supply lists of course coordinators and invigilators.
- After conduct of end semester examination, IT enabled centralised assessment programme is conducted.
- Grading system has seven pass grades (A+, A, B+, B, C+, C, and F) equivalent to grade points of 10, 9, 8, 7, 6, 5, and 0 respectively as specified in examination and autonomy rules.

(B) Processes integrating IT:

- This institute has online paper setting and question paper moderating facilities.
- Facilities to conduct online quiz and/or any other evaluation tools/examinations are available in the institute.
- Institute has well developed and customized MIS for examination and result processing.
- Online marks entry for all in semester examinations and continuous assessment by the course coordinator.
- Examination data is saved on cloud server.
- All marks statement and academic documents are system generated.

(C) Internal Continuous Assessment (ICA) system

- Internal Continuous Assessment (ICA) principle is followed in all courses.
- ICA for theory courses includes Internal Sessional Assessment (ISA) and In Semester Examination (ISE) or Mid Semester Examination (MSE) while that of laboratory courses and other special courses include continuous evaluation/review of laboratory work, project, seminar, etc.
- ICA is properly monitored by HoD, CoE, Dean (Academics) and principal.
- ICA of project, seminar and similar courses by a committee appointed by HoD.
- All the activities of ICA are conducted as per academic calendar.
- Department level grievance committee to address the issues of ICA.

File Description	Document
Provide links as Additional Information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1

The institution has stated learning outcomes (programme and course outcome)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents and the attainment of the same are evaluated by the institution

Response:

Vision and Mission statements are displayed on the college website and various places like entrance of the college, Corridor, Principal Cabin, Trustee Cabin, Library and Seminar Hall, IQAC Office etc.

Programme Educational Objectives (PEOs), Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) have been defined by college. PEOs, POs and PSOs are disseminated on college website, at the entrance of the college, Corridor, Principal Cabin and Course Files of Teachers.

The course outcomes are written by the respective faculty member. All the faculty members were maintaining COs in their course files. COs are discussed by faculty members in the classrooms during introductory lecture of respective Subject /Course.

The attainment of various outcomes like COs, POs, PSOs and PEOs is carried out in four stages namely: Planning, Implementation, Evaluation and Action Taken.

1. Planning:

- Various outcomes are defined and a correlation is established between outcomes and tools used.
- A mapping matrix is prepared in this regard for every CO, PO and PSO in the program including the elective subjects.

2. Implementation:

- An individual faculty member uses different direct tools like Class Tests, University Exam, Assignments, Seminars, Projects etc., for the evaluation of Course outcomes (COs).
- Principal evaluates POs and PSOs by using evaluation of COs and Indirect Tools like Surveys/ feedback from Alumni, Employer, Parents, Teachers, and Students etc. PEOs are also evaluated by using Indirect Tools only.

3. Evaluation:

- Attainment of all outcomes are calculated and compared with expected level of attainment decided by subject teacher for COs and Principal for POs, PSOs and PEOs.

4. Action Taken:

- If attainment was up to the expectation, then appreciation is extended to the concerned faculty member and in case of deviation from the expected attainment of outcome necessary corrective actions are initiated to improve the outcome as per expectations.

File Description	Document
Upload POs and COs for all courses (exemplars from Glossary)	View Document

2.6.2

Pass percentage of students (excluding backlog students) (Data for the latest completed academic year)

Response: 99.6

2.6.2.1 Total number of final year students who passed the examination conducted by Institution during the latest completed academic year:

Response: 248

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.7 Student Satisfaction Survey

2.7.1

Online student satisfaction survey regarding teaching learning process

Response: 3.68

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1

The institution's research facilities are frequently updated and there are well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

The institute has set up an innovation ecosystem (research culture) to encourage a culture of innovation among the young talents in the campus. To propel innovations in engineering field, the institution has established the active Research Cell which promotes the submission of proposals to various funding agencies. It also motivates the faculty members to provide the consultancy at local level. The institute had developed the research policy and the system to encourage a culture of research and innovation among the students and faculty members. Following are the initiatives for updating research facilities:

Research Laboratories: Institute has research laboratories (Mechanical Engineering, Electrical Engineering, and Civil Engineering) in which research scholars and faculty members are doing their research work. All laboratories are suitably equipped with equipments, computers and software and are regularly updated. Institute has sufficient funds for updating research facilities. This institute has excellent IT infrastructure crating conducive environment for research.

Research Cell (Institute Innovation Council): This institute had established Institute Innovation Council as per the norms of AICTE, New Delhi. It is created with the objective of nurturing and training the students/faculty members to provide research solution to real world problems. The institute conducts workshop, seminar, webinar, and interaction session with experts from collaborative Industries/institutes/organisations. Research proposals are being submitted to affiliated universities and AICTE. It guides and motivates the HoDs and faculty members to update the research facilities including equipments, books and journals and to publish/present their research work in reputed journals, various national and international conferences.

Library Resources: The Institution has a subscription national and international journals, e- journals and magazines to promote research and development activities in the campus. Institute spends sufficient amount for library resources.

3.1.2

The institution provides seed money to its teachers for research

Response: 380.1

3.1.2.1 Amount of seed money provided by institution to its teachers for research year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
152	217.26	5	4.59	1.25

File Description	Document
Institutional data in the prescribed format (data template)	View Document

<p>3.1.3</p> <p>Percentage of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research during the last five years</p> <p>Response: 100</p>	
<p>3.1.3.1 Number of teachers who received national/international fellowship /financial support by various agencies, for advanced studies / research; year-wise during the last five years</p> <p>Response: 45</p>	
File Description	Document
Institutional data in the prescribed format (data template)	View Document

3.2 Resource Mobilization for Research

<p>3.2.1</p> <p>Total Grants research funding received by the institution and its faculties through Government and non-government sources such as industry, corporate houses, international bodies for research project, endowment research chairs during the last five years (INR in Lakhs)</p> <p>Response: 380.1</p>	
File Description	Document
Institutional data in the prescribed format (data template is merged with 3.2.2)	View Document

<p>3.2.2</p> <p>Number of research projects per teacher funded by government, non-government , industry, corporate houses, international bodies during the last five years</p>
--

Response: 0.56

3.2.2.1 Number of research projects funded by government and non-government agencies during the last five years.

Response: 25

File Description	Document
Institutional data in the prescribed format (data template merged with 3.2.1)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2.3

Percentage of teachers recognised as research guides as in the latest completed academic year

Response: 52.38

3.2.3.1 Number of teachers recognised as research guides as in the latest completed academic year:

Response: 22

File Description	Document
Institutional data in the prescribed format (data template merged with 2.4.2 and 3.4.2)	View Document

3.3 Innovation Ecosystem

3.3.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

Response:

The institute has set up an innovation ecosystem through its Institute Innovation Council (IIC) for innovations, Indian Knowledge System (IKS), awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology. The institution keeps up the ecosystem (functioning of IIC) vibrant and performs with state of the art infrastructure and suitable scholarly human resources.

Innovation/Research: To propel innovations in engineering field, the institution has established the research laboratories (Mechanical Engineering, Electrical Engineering, and Civil Engineering) in which research scholars and faculty members are doing their research work. All laboratories are suitably

equipped with equipments, computers and software and are regularly updated. Institute has sufficient funds for updating research facilities.

Indian Knowledge System (IKS): The curriculum of this institute includes the courses to cover Indian Traditional Knowledge System and Indian Constitution. Expert lectures by eminent personalities to cover the topics of Indian Traditional Knowledge System and Indian Constitution are arranged during Induction Programme.

IPR cell: Institute Innovation Council looks after the activities related to intellectual property rights.

File Description	Document
Link for Any other additional information	View Document

3.4 Research Publications and Awards

3.4.1

The Institution ensures implementation of its stated Code of Ethics for research.

The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following:

- 1. Inclusion of research ethics in the research methodology course work**
- 2. Presence of institutional Ethics committee (Animal, Chemical, Bio-ethics etc.)**
- 3. Plagiarism check through software**
- 4. Research Advisory Committee**

Response: A. All of the above

File Description	Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.2

Number of candidates registered for Ph.D per teacher during the last five years

Response: 3.09

3.4.2.1 Number of candidates registered for Ph.D during the last 5 years:

Response: 68

File Description	Document
Institutional data in the prescribed format (data template merged with 2.4.2 and 3.2.3)	View Document

3.4.3

Number of research papers published per teacher in the Journals as notified on UGC CARE list during the last five years

Response: 4.89

3.4.3.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years

Response: 220

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link to the uploaded papers, the first page/full paper (with author and affiliation details) on the institutional website	View Document
Links to the paper published in journals listed in UGC CARE list	View Document
Link re-directing to journal source-cite website in case of digital journals	View Document

3.4.4

Number of books and chapters in edited volumes published per teacher during the last five years

Response: 2

3.4.4.1 Total Number of books and chapters in edited volumes published during the last five years

Response: 90

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.5

Bibliometrics of the publications during the last five years based on average Citation index in Scopus/ Web of Science

Response: 6.94

3.4.6

Bibliometrics of the publications during the last five years based on Scopus/ Web of Science – h-index of the Institution

Response: 15

3.5 Consultancy

3.5.1

Revenue generated from consultancy and corporate training during the last five years

Response: 751.21

3.5.1.1 Total Amount generated from consultancy and corporate training year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
111.72	68.72	59.17	227.4	284.2

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.6 Extension Activities

3.6.1

Outcomes of extension activities in the neighbourhood community in terms of impact and sensitizing the students to social issues and holistic development, and awards received if any during the last five years (Showcase at least four case studies to the peer team)

Describe the impact of extension activities in sensitising students to social issues and holistic development with four case studies within a maximum of 500 words

Response:

Induction Programs is being conducted every year as per the directives of AICTE, New Delhi for the first year/direct second admitted engineering students through which the students are motivated to participate in the extension activities organised by institute in the neighborhood community. Involvement of students in programmes organized by various cells and bodies ensure their participated in extension and outreach programmes. The institute has received appreciation and recognition for its contribution towards social responsibility and community development activities. Number of programmes are being organised by Institute as listed below.

Women's Day- On occasion of Women's Day, the institute convened the awareness programme for Save Girls, Educate Girls, Female Safety, Use Helmet, etc.

Blood Donation Camp- In collaboration with the nearby Blood Banks; the College has been organising the Blood Donation Camps.

Tree Plantation- To save environment and disseminate the awareness about environment in the neighborhood society the institute organises tree plantation program every year.

Water and Energy Conservation- College conducted the Seminar on Water and Energy conservation for students and faculty members as an awareness programme.

Yoga Camp- For good health Yoga is important. The institute organised the Yoga Training for students.

Field Visit/Project: B.Tech. projects and M. Tech. dissertations in few cases were based on addressing the real-life problems in rural areas under Unnat Bharat Abhiyaan and Unnat Maharashtra Abhiyaan.

Student Forum Activities: Different student clubs/associations (CESA, MESA, EESA) in the college are monitored by department faculty coordinator. These forums organize various extension and outreach activities in the college as well as in the neighbourhood community.

3.6.2

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years

Response: 82

3.6.2.1 Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years.

2022-23	2021-22	2020-21	2019-20	2018-19
20	20	2	20	20

File Description	Document
Institutional data in the prescribed format (data template)	View Document

3.7 Collaboration

3.7.1

Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years

Response: 36

File Description	Document
Institutional data in the prescribed format (data template)	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1

The Institution has adequate infrastructure and other facilities for

- 1. teaching – learning, viz., classrooms, laboratories, computing equipment etc**
- 2. ICT – enabled facilities such as smart class, LMS etc.**
- 3. Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.**

Response:

The institute is situated in a green campus and have well equipped laboratories, spacious classrooms, and adequate infrastructure facilities.

Teaching-Learning Facilities:

1. Classrooms are spacious, ventilated and have adequate furniture, Smart Board, and Wi-Fi connectivity.

2. Laboratories have necessary equipment, instruments, lab manuals, etc. for carrying out experiments as per the curriculum. Laboratories are equipped with First Aid and Safety Measures.

3. Computing Equipment

The College has all the necessary licensed/ open source softwares as per the requirement of curriculum. The faculty members are provided with laptops, digital writing pads and printers. Out of 400 desktops, 317 desktops are available for the students use. A leased line with internet bandwidth of 210 Mbps is available. SonicWall firewall and the antivirus software is installed on all the computers.

4. College has two seminar halls, with seating capacity of 50 and 200 each. Both the seminar halls are air-conditioned with other facilities such as projectors, speakers, etc.

5. Workshop has necessary equipment like machine shop, fitting, sheet metal working, welding, carpentry, and foundry.

6. The institute has set up computer labs with AutoCAD to teach courses like Engineering Drawing.

7. Central Library has all the necessary text books, reference books as per the curriculum, journals, and e-journals Sciences. Literature books, newspapers, competitive exam preparation books are also available.

8. Committee rooms

The institute has one board room and one meeting room, in addition to the group discussion room in the Training & Placement office. Each department has separate meeting room.

9. Institute has developed the research center for sponsored research project funded by DST-SERB, India.

10. The institute has developed machining center which consists of high end CNC lath machine from Godrej Pvt. Ltd. Students projects are executed using this facility.

Other Facilities:

1. The Institute has separate Training & Placement Cell with 3 interview rooms and one GD room.

2. **Faculty Rooms** are equipped with the required furniture along with LAN connection.

3. Adequate Gents and Ladies washrooms are available on every floor. Ladies washrooms are equipped with sanitary pad vending machine along with incinerators.

4. The College has facilities for indoor-sports. The campus also has a volley-ball ground, cricket ground and well equipped gymnasium. The institute provides the necessary sports equipment to students as per the need.

5. All the seminar halls, auditorium is provided with adequate facilities to conduct various cultural activities. The institute also has an open air auditorium, to host the annual cultural and technical festivals.

6. The campus also has a gymnasium, with necessary body building equipment.

7. **Girls Common Room is available as per AICTE norms.** It serves as a secure and supportive space for female students.

8. **Boys Common Room is available as per AICTE norms.**

Add on Facilities:

Hostels, Study Room in Hostel, Canteen facility, Photocopy Centre, First Aid Room, UPS Power Backups, and Doctor on Call, Fire Extinguishers and CCTVs are also available in the campus.

File Description	Document
Upload any additional information	View Document

4.1.2

Percentage of expenditure excluding salary, for infrastructure development and augmentation year wise during the last five years

Response: 37.18

4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
70.98	17.25	0.084	45.31	71.23

File Description	Document
Institutional data in the prescribed format (data template is merged with 4.2.2 and 4.4.1)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.2 Library as a Learning Resource

4.2.1

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

Response:

The fully computerized Central Library of the Institute is a treasure house of knowledge comprises ever growing collection of around 45,000 books; more than 11000 e-books (Elsevier, IET, McGraw-Hill, Pearson, Proquest, and Springer) and 3,500 bound volumes of journals both national and international subscribed by the college over the years. Library also has developed collection of Dissertations, submitted by post graduate students (M.Tech. & Ph.D.) of this Institution. These design oriented and case study thesis are kept for reference for the next batches. The prints as well as e-version of these theses are made available through digital library on and off-campus. All these valuable resources are well organized in the 6000 Sq. Ft. area, where more than 150 users can sit at a time and they are monitored by CCTV Cameras.

SPCE Library has set up two Cyber Library Labs with over 100 high end computers working in a networked environment through dedicated leased line with integrated bandwidth of 210 Mbps. The Online full text databases like, Springer, Science Direct, IET, ASCE, ASME, E-Journals and Pearson, McGraw-Hill, TMH, Proquest, ASTM E-books Link. Additionally, facilities like Web OPAC, NPTEL online lectures and digital library are also accessible to the students and faculty members.

SPCE Central Library has implemented Knimbus remote access software as a tool to provide access to the user community. User can access all the subscribed and in house e-materials through the library on any device from anywhere on a single platform rather than just being a list of links to separate publishers

platform.

For generating quality research work SPCE library provides plagiarism check through Turnitin software.

The library reading room is air-conditioned and is available to the students for 24 hours. The access section is available for the students and faculty members from 8.30 am to 5.30 pm. The library provides open access facility to the students.

Amount spent on purchase of books, journals:

In last 5 years 10% amount is spent on purchase of books, journals, and other allied library activities.

Per day usage of library:-

Daily on an average more than 250 users access the library resources.

File Description	Document
Provide the link for additional information	View Document

4.2.2

Percentage of expenditure for purchase of books/ e-books and subscription to journals/e-journals year wise during the last five years

Response: 15.57

4.2.2.1 Expenditure for purchase of books / e-books and subscription to journals/e-journals year wise during last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
21	24	16.67	11.75	12.37

File Description	Document
Institutional data in the prescribed format (data template merged with 4.1.2 and 4.4.1)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.3 IT Infrastructure

4.3.1

Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

Response:

The institute has provided state of the art and well maintained IT Infrastructure which include advanced server with SAN storage, computer labs latest configuration PCs, LAN, Wi Fi facilities, all required legal system and application softwares, CCTV, biometric attendance system, etc.

Website: Apropos to mandatory requirements of AICTE, college has informative website: www.spce.ac.in. The information on website is regularly updated. Students, faculty members and all stakeholders access website regularly. Website also hosts useful academic resources, such as exam papers, scheme and syllabus, , academic schedule, exam schedule, etc.

Mail Server and Client: The E-mail facility is managed through Google which provides us web based email client and other Google apps such as Google Classroom, Google-meet, Google sites, etc. All the students, faculty and staff members are provided with e-mail ID on spce.ac.in domain.

Internet: The institute has subscribed to leased lines with aggregate bandwidth of 210 Mbps. The library hosts an internet browsing center.

DSPACE (Digital Repository): All important administration documents are available and hosted in digital format on a server named as DSPACE.

Packages: All the necessary academic and office software packages such as MATLAB, Simulink, CATIA, Ansys, AutoCAD, MS Office Suite, MS Project, etc.

Computer, Laptop, Printer, Projector: There are around 400 desktop computers available in the Institute out of which 317 computers are available to the students for academic activities. A Network Storage facility with an automated data backup and recovery system caters to the data storage requirement. All the faculty members are provided with the laptop and digital writing pads and a printer.

Wi-Fi facility: The Institute main building and the hostel are provided with the Wi-Fi facilities. All the internet traffic is monitored through a SonicWall Firewall. A storage server with VPN based access and username password based authentication is also in place.

LAN: The institute has gigabyte LAN with fibre optics backbone. There are more than 30 manageable network switches which handle the internal data traffic. The campus network is supported by 2 high speed servers with SAN Storage.

CCTV Surveillance: The institute has implemented campus wide CCTV Surveillance system for safety and security of all the stakeholders and property.

Biometric Attendance System: The attendance of all faculty members and staff is maintained in a iris based biometric attendance system.

IT Infrastructure Committee: The institute has a IT Infrastructure Management Committee chaired by Mr. S. J. Sawant. This committee comprise of System Analyst and IT Hardware support engineer, in addition to two other academic members.

The IT Infrastructure created on campus provides an ambience conducive to stimulating learning for students.

File Description	Document
Provide the link for additional information	View Document

4.3.2

Student - Computer ratio (Data for the latest completed academic year)

Response: 2.88

4.3.2.1 Number of computers available for students' usage during the latest completed academic year:

Response: 317

File Description	Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.3.3

Institution has dedicated audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development

Response:

The Government of India, AICTE, UGC and other authorities of technical education have taken several novel initiatives in recent years to promote information and communication technology (ICT) in education in general and technical education in particular. This led to a venture called 'E-Content Development Centre or Audio-Visual Room' in this institute. The goal of this initiative is to encourage individual teachers, groups of teachers in college in content development and multimedia production to develop educational content in electronic format, suitable for use in various learning programmes. The Centre aims to reach out to the maximum online beneficiaries through sharing the knowledge resource of the college as well as to seek expertise from outside to equip the students to face the challenges of the Digital World. The College has established a full-fledged media studio to support the E-content

development. The facility available in the studio can be used by the faculty members for academic purposes like recording e-content, editing documentary videos, dubbing, etc.

The objectives:

- To Motivate and facilitate the staff members to develop e-contents on their own
- To encourage all the staff members, develop e-contents every year as per the stipulated time schedule. The developed e-contents are intended to be shared with the students in order to enrich their learning experience better.
- To make available the academic writings/materials/ of staff and transact assignments and seminar portions through the medium.

Infrastructure Facility available for E-Content Development:

- Specifications, versions and features of software in studio:

Sr. No.	Item	Amount
1	Adobe Suite for Video editing	Rs. 50,622.00
2	3D Max	Rs. 81,184.00
3	Live streaming Studio CDN Media server	Rs. 84,960.00

- Carpet area of recording studio : - 367sqft (15.7 ft X 23.4 ft)

Software Available for Editing Videos:

Specifications of major equipment's including costs in studio :

Sr. No.	Item	Amount
1	Video Mixer Set AWS 750	Rs. 11,09,200.00
2	Sony Camera PXW-Z150	Rs. 3,59,900.00
3	Milestone 4K Switcher	Rs. 67,260.00
4	Interactive Board TV	Rs. 2,59,600.00
5	BOSE sound system	Rs. 87,320.00
6	Light arrangement system	Rs. 59,000.00

File Description	Document
Provide the link for additional information	View Document

4.4 Maintenance of Campus Infrastructure

<p>4.4.1</p> <p>Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years</p> <p>Response: 39.47</p>				
<p>4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities of DDE and total expenditure excluding salary, year - wise, over the last five years (INR in lakhs)</p>				
2022-23	2021-22	2020-21	2019-20	2018-19
42.2	19.13	92.28	35.81	28.06

File Description	Document
Institutional data in the prescribed format (data template merged with 4.1.2 and 4.2.2)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.4.2

There are established systems and procedures for maintaining and utilizing physical and academic support facilities – laboratory, library, sports complex, computers, classrooms etc.

Describe policy details of systems and procedures for maintaining and utilizing physical, academic and support facilities within a maximum of 500 words

Response:

The Institute has a separate Building & Works Committee (BWC) in place which looks after the day to day maintenance of the building infrastructure and planning for developing new civil infrastructure as per the needs.

The BWC has established standard procedures for utilization & maintenance of all physical, academic & support facilities available in the campus.

Building Maintenance:

It has two major components i.e civil maintenance and electrical maintenance. Each one is managed by the expert person appointed by the institute. Maintenance of the building is carried out by institute with the help of third party vendors qualifying for the work by the procedure of competitive bidding. Electrical maintenance in-charge and the team is responsible for maintenance and repair of power supply, various fixtures, lighting, etc. Optimum working conditions of all common facilities in the campus are ensured through annual maintenance contracts (AMC). The AMC includes maintenance of air conditioners, CCTV cameras, water purifiers, etc.

Classrooms:

Department wise class rooms are demarcated and at the beginning of each semester the classrooms are properly inspected by concerned department. Any necessary civil repairs or electrical maintenance work is carried out to make the classrooms ready for lectures; ICT facilities and furniture are verified by concerned department.

Laboratories:

Laboratories of all departments are well equipped and maintained regularly to avoid discrepancies in the academic schedules. For repair of the equipment qualified and trained person is called under the supervision of lab assistants, cleaning the lab equipment is done by Peon. Periodical checkups and calibration of equipment is done in all laboratories. Stock verification is done in all laboratories every

year.

Library:

The institute has also constituted a Library Committee, which looks after the overall library management. The committee meets regularly and discusses the suggestions given by the students and faculty members. The committee also reviews the available library infrastructure, learning resources and works on improving those as per the suggestions of the students and faculty members. Library maintenance is computerized and automated with regular/constant updation. Librarian collects the requirement for the list of books, journals and other resources from all HoDs and students before the commencement of each academic year. Library updates its books repository on a yearly basis as per the changes in the curriculum. Regular cleaning of the library floors, racks and maintaining the quality of the books with needed binding are in place. Proper inspection and verification of stock takes place at the end of every year.

The library also organizes the book exhibition every year where various book publishers and vendors participate and exhibit the technical, literature and competitive examination preparation books. Every year the institute also offers book purchase allowance to the faculty members. The books recommended by the students and faculty members during the exhibition are procured by the library after scrutiny of the library committee.

Office equipment's:

There is regular AMC for the maintenance of photocopying machine, computers, printers, etc; toner refilling of photocopying machines and printers.

Sport / Ground Maintenance:

Maintenance of the various grounds such as cricket, volleyball ground is done the campus management team where each institute on the campus contributes jointly towards the maintenance expenses. The sport kits and all consumable items are provided by the Institute as per the needs of the students.

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1

Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 53.6

5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
453	480	562	610	576

File Description

Document

Institutional data in the prescribed format (data template)

[View Document](#)

Provide Links for any other relevant document to support the claim (if any)

[View Document](#)

5.1.2

Efforts taken by the institution to provide career counselling including e-counselling and guidance for competitive examinations during the last five years

Response:

The Institute has separate Training & Placement Office which provides career counselling facilities to all the students and coordinates various Training & Placement activities.

The Institute has a full time faculty appointed as Training & Placement Officer and a separate office is available for these activities.

The following initiatives are taken up by the T & P Office for career counselling:

- 1. Trainings:** The T & P Office conducts employability skill assessment tests and various pre- and post-recruitment trainings, career guidance seminars through the Finishing School, which was established as per the norms of TEQIP.
- 2. SPLICE (SP Learning Initiative for Career Enhancement):** SPLICE is an initiative to bring

SPCE Alumni and students together to help each other. Under SPLICE, T & P Office conducts mock placement drive for current students with the help of Alumni. Assessment partners of recruiters set the papers for mock placement drives. This initiative helps students to understand the placement process and prepare accordingly.

3. **Industry Institute Interaction:** T & P Office of the Institute also coordinates various Industry Institute Interaction activities such as industrial visits, expert lectures, internships and projects of industrial relevance for the students.
4. **Camps Recruitments:** The efforts taken by the T & P Office for the overall development of the students, result into majority of placement aspirant students receiving job offer on campus from prominent recruiters such as Mahindra & Mahindra, Tata Housing, Tata Power, Tata Motors, Tata Consulting Engineers, Thyssenkrupp India, Aker Solutions, Reliance Industries Ltd., Toyo Engineering, L & T Engineering, L & T Construction, UltraTech Cement, Siemens, Alfa Laval, etc.
5. **Finishing School:** T & P Office also coordinates Finishing School activities as a part of TEQIP Project. The key activities under the aegis of this Finishing School are,
6. Remedial teaching with the help of respective departments for improving transition rate and pass rate of students
7. Specialized soft skills and professional skills development training during semester breaks and vacations for increasing employability,
8. Guidance for various competitive exams like CAT, CET, GRE, etc.

- Organizing campus interviews to secure employment for graduate engineers.
- Diagnostic test (employability skills assessment test) is conducted for F Y B Tech students.

The Diagnostic Test helps institution to measure following skills and competencies of the students:

- Aptitude Skills,
- Workplace Skills,
- Personality Factors.

Assessment of these skills provides students' the quantitative inputs and help in measuring competencies for specific tools. It also helps students to find the job profile most suitable for their personality and gave an idea about areas of improvement. On the basis of performance of students in the Diagnostic Test, various career counselling trainings are organized under by the T & P Office.

This career counselling Training program is of 50 hrs. duration and covers following modules:

- Soft Skills (20 hrs)
- Campus Recruitment Test Preparation (18 hrs)
- Introduction to General Skills (12 hrs)

The T & P Office also conducts 200 hour GATE training under TEQIP which help students to clear competitive exams like GATE, Engineering Services Exam.

All these career guidance initiatives of T & P Office help to enhance placement rates and provide better

employment and higher education opportunities to the students.

File Description	Document
Provide the link for additional information	View Document

5.1.3

Following capacity development and skills enhancement activities are organised for improving students' capability

- 1. Soft skills**
- 2. Language and communication skills**
- 3. Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)**
- 4. Awareness of trends in technology**

Response: A. All of the above

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.1.4

The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases

- 1. Implementation of guidelines of statutory/regulatory bodies**
- 2. Organisation wide awareness and undertakings on policies with zero tolerance**
- 3. Mechanisms for submission of online/offline students' grievances**
- 4. Timely redressal of the grievances through appropriate committees**

Response: A. All of the above

File Description	Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2 Student Progression

5.2.1

Percentage of placement of outgoing students and students progressing to higher education during the last five years

Response: 89.79

5.2.1.1 Number of outgoing students placed and progressed to higher education during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
246	240	213	275	283

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2.2

Percentage of students qualifying in state/ national/ international level examinations out of the graduated students during the last five years

(eg: NET/SLET/ Civil Services/State government examinations etc.)

Response: 15.79

5.2.2.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/Civil Services/State government examinations etc.) year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
27	32	72	34	56

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.3 Student Participation and Activities

5.3.1

Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events during the last five years

Response: 52

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at University / state / national / international level events (award for a team event should be counted as one) year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
21	6	8	9	8

File Description

Document

Institutional data in the prescribed format (data template)

[View Document](#)

Provide Links for any other relevant document to support the claim (if any)

[View Document](#)

5.3.2

Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution.

Describe the Student Council activity and students' role in academic & administrative bodies within a maximum of 500 words

Response:

The students' council: It is formed as per the guidelines of UGC, affiliating University. The members of student council or any other student representative nominated by the students' council are involved in various academic, co-curricular and extracurricular activities. The details of students council is given below.

Structure of Students' Council:

Objectives of Students' Council: The following are the important objectives of the student council.

- To develop leadership by organizing and carrying out college activities and service projects.

- The student council is responsible for the smooth and graceful functioning of various events.
- To provide a viable means for student expression and an improved decision making ability
- To improve understanding between and within groups through interaction and communications.
- To encourage students to be inquisitive, well informed, honest, active citizens

Election Process of Students' Council: It consists of following steps.

- Rules and regulation specified by UGC, affiliating University and State Government regarding the constitution of Students' Council are displayed on the notice board of all departments well before the formation of the student council.
- Topper from boys and topper from girls from each class are selected as Class representatives. Nominations for the various positions of University Representative, General Secretary, Cultural and Sports Representatives etc. are invited from the various department heads.
- Suitable candidate for the said position is selected by taking interview on the basis of skill set and talent required for the position.
- University Representative/General Secretary of Students' Council is elected by the members of Students' Council or nominated by nomination committee appointed by Principal as specified by affiliating University/State government.

Activities of the Students' Council: Following activities are conducted with active participation of students' council.

- Youth Festival
- Clean Campus
- Swachh Bharat Abhiyan
- Tree Plantation
- Blood Donation
- Annual social gathering
- Discipline in the institute
- Sports week
- Various curricular, co-curricular and extracurricular activities

Representation of students on other bodies: Students' representatives are nominated on following important committees in addition to students' council.

- Academic Council
- Board of Studies
- Departmental students' association, etc.
- Various technical, non-technical activities
- Various committees at department and institute level.

File Description	Document
Provide the link for additional information	View Document

5.3.3

The institution conducts / organizes following activities:

- 1.Sports competitions/events**
- 2.Cultural competitions/events**
- 3.Technical fest/Academic fest**
- 4.Any other events through Active clubs and forums**

Response: A. All four of the above

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.4 Alumni Engagement

5.4.1

Total Amount of alumni contribution during the last five years (INR in lakhs) to the institution through registered Alumni association:

Response: 21.71

5.4.1.1 Total Amount of alumni contribution during the last five years (INR in lakhs) to the institution year wise through registered Alumni association:

2022-23	2021-22	2020-21	2019-20	2018-19
4.19	4.43	4.505	4.315	4.27

File Description	Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.4.2

Alumni contributes and engages significantly to the development of institution through academic and other support system

Describe the alumni contributions and engagements within a maximum of 500 words

Response:

Alumni Association: This institute has a registered and active alumni association. Its office located in the campus and faculty coordinator/advisor of alumni association is available to students during working hours of the institute. Audit, election, submission of change report, etc mandatory activities are timely completed and all records are appropriately updated. This alumni association undertakes the following activities in the interest of stake holders of the institute. This institute organises the yearly meeting of alumni with final year students (annual alumni meet) for proper interaction among them.

Interactions with industrial associates: Alumni association supports the students and motivates the students and finally it acts as a link between industry and the institute.

Alumni interaction: Alumni of our institute are invited as resource persons at various events, guest lectures, and panel discussions to give inputs to aspiring graduates. They provide inputs and share their experiences regarding skills, recent technologies & trends in latest technologies, application of knowledge, and working culture.

Placement and career guidance: Alumni working in different companies keep the faculties and the placement officer abreast about the available job opportunities. They assist and guide the students to crack the interviews. They also share their experience with the students and motivate them for their career development in various domains.

Entrepreneurship Awareness: Some of our Alumni have established their own industry/ business/ startups in different sectors, and many of them are first-generation entrepreneurs. Through the journey as an entrepreneur, they learned various skills & knowledge. They enlighten the students with their success stories and challenges faced.

Other services:

- Supports students and institute to arrange for industrial visits/training of students.
- To find sponsors for project allotment and to support training in industries.
- Network among alumni create a database of graduated students and create a networking website for the alumni association.
- To arrange get-togethers to promote active interaction among the members.
- To interact and motivate members to associate and contribute to the alumni

File Description	Document
Provide the link for additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

Response:

Vision

SPCE aspires to be an institution of national repute that will create professionals with competence and motivate research for the progress of the nation.

Mission:

- To impart quality education through time relevant curriculum in academic programs
- To enhance career opportunities for students through industry institute interaction and value-added courses
- To promote excellence by encouraging innovative ideas and lateral thinking
- To inculcate sense of discipline and responsibility towards society

Perspective Plan: This institute had prepared its perspective plan including both short and long-term goals which are linked with its vision and mission. The plans are created with participation of all stakeholders.

Efforts taken by institutional leadership: The institutional leadership works transparently to frame the policies which are aimed to achieve the Vision and Mission of the Institute.

NEP Implementation: NEP implementation cell is in place. The students are registered on ABC portal. The curriculum is revised to implement NEP recommendations and adopted w.e.f. AY 2023-24. The revised curriculum promotes, critical thinking, expanding research opportunities, integrating interdisciplinary learning, and supporting students' overall growth.

Sustained Institutional Growth: The governance and leadership initiatives of the institute make sure that growth trajectory of this institute is in line with its vision and mission and that it also satisfies the changing needs of all stakeholders through strategic planning and continuous assessment.

Decentralization: The Governing Body of the Institute is constituted as per the guidelines of UGC. The constitution of Academic Council and Finance Committee is as per the UGC guidelines. The GB delegates the powers to the Principal and Principal looks after the over administrative, financial and academic affairs of the Institute with the help of respective HoDs, Section Heads and Registrar. The GB also appoints three Deans namely, Dean (Finance & Admin), Dean (Academics & Quality Assurance) and Dean (PG Program and R&D), to coordinate the Financial, administrative, academics, quality

assurance and R&D activities of the Institute. Thus the overall administration of the Institute is decentralised and there is autonomy for respective committees for decision making.

Participation in Institutional Governance:

The institute has constituted committees for various purposes such as: BoS, Purchase, Building & Works, Student welfare, Grievance Redress, IQAC, Alumni, Hostel, Examination, Industry Institute Interaction, Women development, SC/ST Cell, Anti-ragging committee, Training & Placement etc.

These committees comprise of faculty members and the non-teaching staff members.

The GB and the Principal has also provided the financial powers as per the need of the portfolio to the respective Deans, HoDs, section heads so that the decision making is decentralised.

In BoS, anti-ragging committee, hostel committee, student welfare committee, T&P Committee, WDC, student members are inducted so that they get adequate representation. The industry representatives and alumni are inducted in GB, Academic Council, BoS, alumni committee, industry institute interaction cell, etc. so that their inputs are considered in policy making, curriculum development.

Thus there is involvement of all the stakeholders in the implementation of the Institute Vision, Mission and the perspective plan.

6.2 Strategy Development and Deployment

6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies are effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

Response:

Perspective Plan:

This institute had prepared its perspective plan for 5 years (2018-19 to 2022-23) including short and long-term goals which are linked with the Vision and Mission of the Institute.

The strategic is based on the Institutional Development goals:

1. **Curricular and Administrative reforms:** Curriculum revision initiated in the academic year 2018-19 and progressively implemented. New cycle of curriculum revision initiated from the academic year 2022-23 (Regulation 22). For NEP implementation Regulation 23 has been introduced.
2. **Human Resource Development:** Faculty and Staff Development Programmes are organized by institute and faculty/staff members are deputed for training programs.
3. **R&D:** Faculty members are motivated for qualification upgrade, attending conference

/workshops. Seed money is provided to the faculty members. Financial assistance is provided to the students for their projects. Faculty members are encouraged to write research proposals. Institute has a **Research Promotion Policy** which incentivizes the students and faculty members for notable R&D activities.

4. **Industry Interaction:** Industrial visits, site surveys, training and expert lectures are regularly organized. One semester internship is available during the prescribed period of UG program for interested students. The Institute has signed MoUs with various industries which help to receive sponsored labs, internships, placements, scholarships, sponsorships for student festivals, assistance in curriculum development, etc.

5. **Society/Services:** Institute is admission Center for centralized admission process. The institute also conducts various extension activities such as blood donation camps, bone marrow donation camps, cleanliness drives, etc. The faculty members are involved in conducting oxygen audit during COVID pandemic. Some faculty members are third party auditors for various Municipal Corporation..

6. **Infrastructure Development:** The needs of repairs, maintenance and development of new civil and lab infrastructure, as per the new programmes and curriculum revision, are considered in the perspective plan of the Institute.

Functioning of the Institutional Bodies:

The institute has constituted following committees:

- Governing Body
- Academic Council
- Examination Committee
- Board of Studies
- Finance Committee
- Building and Works Committee
- Anti-ragging Committee
- Internal Complaints Committee
- Women Development Cell
- Grievance Redressal Committee
- Library Committee
- Internal Quality Assurance Cell
- Training & Placement Cell
- SC/ST Cell
- Purchase Committee

These committees are functioning independently as per the guidelines of various statutory authorities. The functioning of all bodies is transparent and focusing the institutional development.

Recruitment Procedures:

The faculty recruitments are conducted by following the AICTE, UGC, DTE and University of Mumbai guidelines. The committees for the same are constituted as per the guidelines of respective statutory authorities. The staff recruitments are also conducted as per the guidelines of DTE.

Promotion:

The faculty and staff members get timely promotions as per the guidelines of the AICTE and rules framed by the DTE and the State Government. The CAS is implemented by the DTE.

Grievance redressal mechanism:

The institute has,

- Grievance redressal cell to look into the general grievances
- Exam grievance redressal committee to look into exam related grievances of students
- Internal Complaints Committee to look into the grievances of the female students, staff and faculty members

6.2.2

Institution implements e-governance in its operations. e-governance is implemented covering the following areas of operations:

- 1. Administration including complaint management**
- 2. Finance and Accounts**
- 3. Student Admission and Support**
- 4. Examinations**

Response: A. All of the above

6.3 Faculty Empowerment Strategies

6.3.1

The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

Response:

Service rules, procedures, recruitment, promotional policies: The rules and policies regarding recruitment, salaries and promotion including Career Advancement Scheme (CAS) are as per AICTE norms and Government of Maharashtra norms.

Performance appraisal system: The institute follows the performance appraisal system prescribed by the DTE and the Government of Maharashtra in accordance with the guidelines laid down by AICTE and UGC. It includes 360 degree feedback about the overall performance of the faculty member w.r.t. following parameters:

- Teaching Process (25 points)
- Students' Feedback (25 points)
- Departmental Activities (20 points)

- Institute Activities (10 points)
- Contribution to Society (10 points)
- ACR (10 points)

The performance of the faculty members is appraised by reporting officer and reviewed by Principal and further by the Joint Director of DTE.

For non-teaching staff, the performance parameters are as follows:

- Attendance and punctuality of the staff,
- Trainings undertaken,
- **Work completion:** accomplishment of planned work, quality of output, accomplishment of exceptional works.
- **Personal attributes:** attitude to work, overall bearing and personality, emotional stability, communication skills, capacity to work in time limits, knowledge of relevant acts, strategic planning ability, decision making ability, ability to coordinate with other government agencies related to the work,
- Character and integrity,
- Attitude towards disabled persons, women and backward classes,
- Status of health, etc.

Thus there is a well-defined mechanism for performance appraisal of the faculty and non-teaching staff members.

Effective welfare measures for teaching and non-teaching staff and avenues for career development/progression:

- CAS promotion for faculty members are implemented by the DTE as per AICTE and State Government guidelines and procedures.
- QIP depositions for higher education of employees: QIP depositions for higher education
- Promotion of Class III to Class IV employee as per State Government guidelines and procedures.
- All the employees and their families are secured by the Pension scheme.
- The employees recruited after year 2005 are secured with DCPS through National Pension Scheme (NPS).
- All employees are supported under Group Insurance scheme (GIS).
- Life of all the Employees is secured with Accidental Insurance Policy.
- The entire employee is supported with Mediclaim facility for employees and their dependents.
- The Class III and Class IV employees are provided with the festival advance of Rs. 20,000/- during the festivals.
- Leave Travel concession (LTC) once in four-year cycle and Hometown travel allowance in every two year cycle.
- General provident fund (GPF) and Advance/Loan scheme against the GPF.
- Child care leave of three weeks is provided to the female teaching and non-teaching staff.

6.3.2

Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 100

6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year-wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
42	44	44	45	45

File Description	Document
Institutional data in the prescribed format (data template)	View Document

6.3.3

Percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDPs)/ Management Development Programmes (MDPs) during the last five years

Response: 100

6.3.3.1 Total number of teachers who have undergone online/ face-to-face Faculty Development Programmes (FDP)/ Management Development Programs (MDP) during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
42	44	44	45	45

File Description	Document
Institutional data in the prescribed format (data template)	View Document

6.4 Financial Management and Resource Mobilization

6.4.1

Institutional strategies for mobilisation of funds other than salary and fees and the optimal utilisation of resources

Describe the resource mobilisation policy and procedures of the Institution within a maximum of

500 words

Response:

The institute receives the salary and other plan/non-plan grants from State Government. The tuition fee, development fee & other fee collected from students by the institute. The institute may receive financial assistance from various Government agencies such as World Bank, AICTE, UGC, Mumbai University. The institute utilizes the grants received and fees collected for the institutional routine and developmental activities by following State Government rules, norms and procedure.

The institute also receives reimbursement from the state government towards scholarship and free-ship of the reserved category students.

The faculty members also write the research proposals to funding agencies like DST, SERB, AICTE, etc. to receive research grants.

The institute also generates revenue through various consultancy assignments. The institute has created sustainability funds, through its internal revenue generated, for continuing the student and faculty development activities initiated under TEQIP Project.

Resource Mobilization: The resource mobilization policy of the institute framed by the Governing Body with the inputs from various institutional committees. The policy is based on the principles of transparency, accountability, efficiency, and ethical practices. This resource mobilization policy and processes are intended to assure long-term financial health, efficient resource usage, and achievement of academic and operational excellence.

Identification of Needs: The institution identifies its academic, research, and operational needs by analyzing enrolment trends, academic program requirements, facility needs, and research goals.

The budgets for various activities at the departments, sections are prepared by the respective HoDs and Section Heads. These budgets are considered by the Finance Committee and approved by the GB.

Resource Planning: Based on identified needs, the institution develops short-term and long-term resource plans. These plans outline the type and amount of resources required to fulfill the institution's objectives.

Budget Allocation: Financial resources are allocated in accordance with the needs of the respective department/ section considering the academic priorities, administrative needs, and strategic goals of the respective department/section. The institute budget is prepared by the Registrar and Dean Finance by combining the budgetary needs of all the departments, committee in-charges. A percentage of financial resources are reserved for new development and upkeep/repair of existing resources and facilities. The budget is discussed and approved by Finance committee and GB.

Monitoring and Control: Regular monitoring of financial performance and resource utilization is carried out.

Reporting: The institution provides regular financial and resource utilization reports to relevant stakeholders, including management, and State Government.

Evaluation and Feedback: Periodic assessments of the effectiveness of resource allocation and utilization are conducted.

Conclusion: This institution's resource mobilization policy and procedures are carefully designed to ensure a sustainable and efficient approach to acquiring, managing, and allocating resources. By following these procedures, it aims to maintain financial health, support academic excellence, and contribute positively to the development of our institution and its stakeholders.

6.4.2

Funds / Grants received from government bodies, non-government bodies, and philanthropists during the last five years (not covered in Criterion III and V)

Response: 0

6.4.2.1 Total Grants received from government/non-government bodies, philanthropists year wise during last five years (not covered in Criterion III and V) (INR in Lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
0	0	0	0	0

File Description

Document

Institutional data in the prescribed format (data template)

[View Document](#)

6.4.3

Institution regularly conducts internal and external financial audits regularly

Enumerate the various internal and external financial audits carried out during the last five years with the mechanism for settling audit objections within a maximum of 500 words

Response:

Institute is a Grant in aid and autonomous institute of the Government of Maharashtra and hence the internal and external financial audits are being conducted every year as per the State Government norms to ensure transparency, accountability, and proper financial management within the organization. There is a finance committee to look after all the financial transactions of the institute.

Finance Committee: This committee is constituted as per UGC guidelines for autonomous colleges, 2019 by the Governing Body and it is headed by Principal of the institute. Dean (Finance and Admin) works as member secretary of this committee. It is responsible for budget preparation, approval, smooth

conduct of all financial transactions, internal and external audits etc.

Internal Audits: This institute conducts annual internal audit to reviews financial transactions, accounting procedures, and internal controls. These audits are carried out by our internal audit team, which assesses adherence to financial policies and identifies any discrepancies or irregularities. Internal auditor and its team are appointed by the Governing Body and the parent trust, Bharatiya Vidya Bhavan.

External Audits: There is annual statutory external audit conducted by a certified external audit, firm. This audit evaluates financial statements, transactions, and records to provide an independent verification of financial status of the institute. In conclusion, a robust system of internal and external financial audits has been implemented over the past five years to ensure fiscal integrity and adherence to regulations. The mechanism for settling audit objections follows a systematic approach, facilitating the identification, investigation, resolution, and documentation of issues to maintain financial transparency and accountability within our organization.

The DTE also conducts the assessment of utilization of funds provided by the state government.

The internal and statutory audits are conducted for funds received under various research grants and project grants such as TEQIP.

Auditor General (AG) of Government of Maharashtra: In addition, there is a mandatory audit by auditor general of Government of Maharashtra.

6.5 Internal Quality Assurance System

6.5.1

Internal Quality Assurance Cell (IQAC)/ Internal Quality Assurance System (IQAS) has contributed significantly for institutionalizing the quality assurance strategies and processes, by constantly reviewing the teaching-learning process, structures & methodologies of operations and learning outcomes, at periodic intervals

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of –

- **Incremental improvements made for the preceding five years with regard to quality (in case of first cycle)**
- **Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)**

Describe two practices institutionalized as a result of IQAC initiatives within a maximum of 500 words

Response:

IQAC has contributed significantly in improvement of quality initiatives at the institute. The institute

IQAC meeting is conducted twice in a year. However, the internal members of IQC meet twice a month. Following is the summary of the various initiatives carried out by the IQAC:

Curriculum and Examination reforms:

Curriculum: Following are the important highlights of the Regulation 2018 (R18)

- Curriculum revised as per the AICTE model curriculum.
- Curriculum is mapped with GATE syllabus.
- Track based curriculum, i.e. specific track-based elective courses offered
- Credits through 5 weeks internship.
- Credit transfer for the courses completed through SWAYAM portal
- Credits for technical and non-technical value-added courses

In Regulation 2022 (R22) of the curriculum, the in-semester internship and Skill-based courses are offered.

Regulation 2023 (R23) of the curriculum considers the implementation of NEP guidelines.

Examination: R 18 CIE: Test1 Test 2 CIE: SEE 40:60

R22 CIE Test 1, 2+Internal Evaluation CIE: SEE 40:60

R22 CIE Test 1, 2+Internal Evaluation CIE: SEE 50:50

Teaching Learning Review

The institute also conducts the academic audit once in a year with the help of external expert.

Student course feedback is collected and the end semester course feedback system is in place.

This feedback is analyzed and shared with concerned Faculty member through HoD.

Graduate Exit Survey is conducted which captures, the feedback from graduates regarding the infrastructure, teaching learning process, library resources, impact of training & placement activities, etc.

Examination Audit is conducted every year and audit of question papers and answer books is carried out.

Research:

- The IQAC is instrumental in drafting the Research Promotion Policy alongwith the R&D Committee.
- IQAC conceptualized, planned and executed the international conference SPICON

Initiative for community welfare and universal values

IQAC also coordinates various community welfare and universal value initiatives such as Prakriti : Green Club, SPGIC, Rotaract club, Blood donation, blood marrow donation camps, etc.

IQAC also compiles and reviews the NIRF data and conducts the analysis of NIRF results.

IQAC also coordinates the implementation of SAMARTH software alongwith the IT Team.

IQAC has taken steps for digitization of exam documents.

IQAC frames support policy for weak learners and recommends various steps such as remedial coaching. It also reviews the implementation and impact of the remedial coaching.

IQAC plans and executes the Induction program for new entrants as per the guidelines of AICTE.

6.5.2

The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

Describe any two examples of institutional reviews and implementation of teaching learning reforms facilitated by the IQAC within a maximum of 500 words each.

Response:

The institute conducts a review of the teaching-learning process, structures, methodologies of operations, and learning outcomes through IDC, IQAC, BoS, AC and GB. Following are the broad steps followed for the same:

1. Definition of Objectives and Scope

- The learning objectives and outcomes for each course are defined in the curriculum. The PSOs are defined for each program such that they aim to increase student engagement, enhance understanding of complex topics, and improve graduation rates.
- The review of CO and PO attainment is conducted in each department as a part of NBA accreditation.

2. Review Committees

- The IQAC acts as a review committee for measuring the effectiveness of teaching-learning process, structures, methodologies of operations, and learning outcomes of the curriculum.
- The BoS reviews course contents and COs for each course and AC review the credit framework and the curriculum.
- All these committees comprise of representatives from faculty, students, alumni, industry experts, renowned academicians, to ensure that the committee has experts in pedagogy, curriculum development, and educational technology.
- The specific roles and responsibilities of each committee are defined as per the guidelines of

UGC, AICTE to ensure thorough and efficient evaluation

3. Evaluation of Teaching Methods:

- **Curriculum Analysis:** Review of course content, curriculum, and learning materials to ensure they are up-to-date and relevant.
- **Instructional Methods:** Evaluation of the effectiveness of teaching methods (lectures, lab sessions, projects, etc.) through student feedback.

4. Review of Learning Outcomes

- It is ensured that the learning outcomes are aligned with course objectives and PSOs.
- Tests, exams, quizzes, assignments, projects and presentations are used as tools for direct assessment of student learning.
- **Indirect Assessment is conducted with the help of:**
 - **Alumni feedback** about how well the academic programme prepared them for their careers and further studies.
 - **Recruiters feedback** on the preparedness and performance of graduates in the workforce
 - **Exit surveys from graduating students** to gather their reflections on their entire academic experience.

5. Operational Structures

- The efficiency of administrative tasks such as exam scheduling, quality of manuscript, student support services is evaluated with examination audits.
- The availability of adequate resources (libraries, labs, etc.) is ensured so that they support the teaching-learning process.

6. Feedback

- Feedback regarding course contents, teaching-learning methods, etc. is collected from students for each course.
- Feedback about the course contents and the curriculum design is collected from recruiters and alumni to check the industry relevance of the curriculum and its appropriateness for enhancing employability of the students.
- Feedback is also collected from the graduating students to understand their level of satisfaction regarding attainment of graduate attributes.

7. Action Taken on the feedback

- The findings of each feedback are reported at appropriate forums such as respective department, IQAC, IDC, AC and GB.
- The action to be taken for further improvements is decided, implemented and its effectiveness are reported at these forums.

8. Continuous Improvement

- A feedback loop is established for effective and continuous improvement

- Continuous training and development opportunities are provided for the faculty members to stay updated with the latest educational methodologies.

6.5.3

Institution has adopted the following for Quality assurance:

- 1. Academic and Administrative Audit (AAA) and follow up action taken**
- 2. Conferences, Seminars, Workshops on quality conducted**
- 3. Collaborative quality initiatives with other institution(s)**
- 4. Orientation programme on quality issues for teachers and students**
- 5. Participation in NIRF and other recognized ranking like Shanghai Ranking, QS Ranking Times Ranking etc**
- 6. Any other quality audit recognized by state, national or international agencies**

Response: A. Any 5 or more of the above

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

Response:

The institute is committed towards gender equity and takes necessary measures to provide equal opportunity to male and female stakeholders. The gender equity audit report indicates the measurable amount of female student success rate and retainment ratio of female (teaching and non-teaching staff).

Specific facilities provided for women in terms of:

- a. Safety and security- For the safety and security the campus is maintained by the security guards for 24×7. The institute has installed CCTV cameras for safety and security of the stakeholders.
- b. Women Development cell (WDC)/ Internal Complaint Committee (ICC)- WDC/ ICC promote activities related to empowering of girl students. The institute organizes program which includes girls counseling, gender sensitization talks, solutions to psychological/emotional issues.
- c. Counseling cell: The Counseling cell guides the students and the class teacher/mentor appointed for each class/batch also guide the girl students. The cell conducts various activities regarding the importance of gender sensitivity in the campus and the society. Conscious efforts are taken in the College to create open, free and healthy learning atmosphere. To increase the confidence level in girls, Mentors offer Counselling to students. Cell also creates awareness in students about Scholarships which are available to economically and socially backward girl students. College encourages participation of girls, in various co-curricular and extracurricular activities.
- d. Common Rooms- To facilitate female students, a spacious girl's common room is available where girls can relax, study, and do informal discussions in the free time.
- e. Separate girls' toilet on each floor: The building of this institute is well designed and has separate girls' toilet on each floors. The washrooms are equipped with sanitary pad vending machine along with incinerators.
- f. Any other relevant information: Programs/workshops related to self-defence and yoga are conducted by trained faculty members from this field give important tips related to self-defence along with demonstrations. The suggestion boxes are placed at strategic locations and suggestions received for girls' empowerment are specifically discussed and appropriate action is taken.
- g. A care is taken to provide sufficient representation to girl students in students' council, departmental

students' association and all other curricular/co-curricular/extra-curricular activities.

7.1.2

The Institution has facilities for alternate sources of energy and energy conservation measures

1. Solar energy
2. Biogas plant
3. Wheeling to the Grid
4. Sensor-based energy conservation
5. Use of LED bulbs/ power efficient equipment
6. Wind mill or any other clean green energy

Response: A. Any 4 or more of the above

7.1.3

Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management
- Biomedical waste management
- e-Waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management

Response:

Environmental consciousness and sustainability is ensured by the college through the following waste management methods. Waste management is for environmental protection, human health protection and aesthetic concerns.

1. Solid waste management: It is a process of collecting, treating and disposing of solid material that is discarded and no more in use. The solid waste is collected every day and processed according to the form of the waste. A part of solid waste management dust-bins are kept at different places in the campus for collection of solid waste. Municipal corporation collects the solid waste on regular basis.

2. E-waste management: E-Waste is computer, electrical, electronic equipments or parts which are damaged or not in use are loosely discarded. Beyond repair computers, electronics circuits, and electrical spares result in E-waste and are disposed-off for recycling. Recycling and disposal of E-waste may involve significant risk to health of person in contact and communities. It contains lead, cadmium, and beryllium or brominated flame retardants. Hence great care must be taken to avoid unsafe exposure in recycling operations and leaking of material. Proper E-waste management system is essential in view of public health and our ecosystem. E-waste is collected at regular intervals at institute level and write off/sold as per State Government norms. College has Green Club and MoU with e-Waste Management Company also.

3. Biomedical waste: Biomedical waste is not created as this is the engineering college which does not offer any course related to chemical engineering, biotechnology/biomedical engineering, etc.

4. Hazardous chemicals: Hazardous chemicals and radioactive waste is not generated in this institute as it does not offer any course related to chemical, biotechnology, engineering, etc.

7.1.4

Water conservation facilities available in the Institution:

- 1. Rain water harvesting**
- 2. Borewell /Open well recharge**
- 3. Construction of tanks and bunds**
- 4. Waste water recycling**
- 5. Maintenance of water bodies and distribution system in the campus**

Response: A. Any 4 or more of the above

7.1.5

Green campus initiatives include

Describe the Green campus initiative of the institution including Restricted entry of automobiles, Use of Bicycles/ Battery powered vehicles , Pedestrian Friendly pathways , Ban on use of Plastic, landscaping with trees and plants etc in 500 words

Response:

This institute has framed its environment/green campus policy and it is being effectively implemented. It appraises in implementing pollution free green concepts in the campus. It believes in global standard technical education combined with environment friendly practices to promote imperishable development. The infrastructure and facilities available on campus are spread over 37 acres spacious land which is noise free, clean, green zone and serene atmosphere perfectly suited for technical education. It is an absolutely self-contained campus comprising everything that students on campus would ever require.

This institute strives hard for implementing the policies framed for green campus initiatives in the right direction. The following practices are undertaken by the college.

1. Use of bicycles/battery powered vehicles: Students and staff members are encouraged to use bicycles/battery powered vehicles. An appropriate recognition is given to students and staff members using bicycles/battery powered vehicles. To make students aware with use of bicycles/ battery powered vehicles, appropriate awareness campaign is organized.

2. Pedestrian friendly pathways: Campus has sufficient space for parking vehicles. It has separate car, scooter and bicycle parking space allotted to student and staff. Security people are assigned duties at the key locations in the campus and look after appropriate parking of vehicles. Roads inside the campus are spacious and well maintained. There is a speed limit for two-wheelers in the campus to avoid accidents

due to rash driving. Entry of heavy vehicles inside the campus is restricted. Therefore, pedestrians can walk safely in the campus through walk friendly pathways. The campus has improved pedestrian visibility, additional area for pedestrian queuing, and a location for sidewalk amenities and landscaping.

3. Ban on use of Plastic: As per green campus policy of the institute, there is a ban on single use plastic items in the campus parallel to Maharashtra Government revised directives on single-use plastic ban allowing products made of compostable material as well as plastic packaging material with a thickness below 50 microns. Students are made aware about eco-friendly initiatives through notices and banners.

4. Landscaping with trees and plants: This institute has civil engineering department, which guides on landscaping and appropriate locations for tree plantation, lawns, gardens etc. Institute undertakes tree plantation drive regularly to maintain greenery in the campus. As a result, institute has developed beautiful lawns/gardens, trees and plants throughout the campus.

5. Energy and environment/green audit: As a part of implementing green campus policy, this institute conducts energy and environment/green audit regularly.

7.1.6

Quality audits on environment and energy are regularly undertaken by the institution

The institutional environment and energy initiatives are confirmed through the following

- 1.Green audit / Environmental audit**
- 2.Energy audit**
- 3.Clean and green campus recognitions/awards**
- 4.Beyond the campus environmental promotion and sustainability activities**

Response: A. All of the above

7.1.7

The Institution has Differently-abled (Divyangjan) friendly, barrier free environment

Write description covering the various components of barrier free environment in your institution in maximum of 500 words

- **Built environment with Ramps/lifts for easy access to classrooms**
- **Divyangjan friendly washrooms**
- **Signage including tactile path, lights, display boards and signposts**
- **Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment**
- **Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response:

- This institute had keenly developed differently-abled (Divyangjan) friendly, barrier free environment for such students by providing following facilities to differently-abled (Divyangjan) students.
- As per the admission rules of Government of Maharashtra 5% seats are reserved for differentlyabled (Divyangjan) students. (Rule number 7 (6) (c) of information brochure.)
- Ramps are available from all sides of main academic and administrative and other buildings. In addition, wheel chair facility is made available to aspiring students.
- This institute had divyangjan friendly washrooms for boys as well as girls students on all the corners of all the floors so that such students need minimum movements.
- There is provision for human assistance, reader, scribe, soft copies of reading material, screen reading etc if asked by eligible and aspiring student. This institute had identified expert of that field and can be called if required.
- As per the admission rule to engineering (Rule number 7 (6) (c) of information brochure.) the candidates with disability should note that on admission to degree course they will not be given any exemptions or additional facility in the academic activities other than those which may be provided by the respective Universities/ College. Therefore, highly disabled students did not take admission in this institute since establishment and hence signage including tactile path, lights, display boards and signposts divyangjan accessible website, screen-reading software, etc is not required till date.
- As per the University Grants Commission guidelines, this institute had made the provision in its rule to provide additional time of 20 minutes per hour of examination duration in all examinations.

7.1.8

Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and such other diversities (within 500 words).

Response:

Harnessing the diverse population of people creates a productive and pleasant environment in which everyone feels valued. It is a great vision to the institutional actions that aim to promote greater inclusion of all from different backgrounds into the institutional structure. Institute undertakes following activities regularly to promote inclusive environment:

Induction Program: As per the guidelines of AICTE, institute organizes two-week full induction program for new students to make them familiar/comfortable with the environment of institute and engineering education. It also helps to demonstrate improved universal values/human skills in profession and life promoting a sense of inclusion and harmony towards various diversities.

Cultural Festivals: Harmony is created among students by arranging various cultural programs on different festivals. The celebration of different festivals with devotion are sign of unity in diversity which is our culture and pride of our country. It is an effective way towards communal harmony and respecting

traditions & our beliefs.

National / International Commemorative Days: Institution celebrates various national and international commemorative days such as Republic Day, Independence Day, Women's Day, Teachers Day, Engineers Day, Birth and Death Anniversary National Dignitaries etc.

(i) Republic Day, Independence Day and Maharashtra Day Every year institute celebrates Republic Day, Independence Day and Maharashtra Day with great enthusiasm. Program starts with flag hoisting and follows with various events on patriotic theme. All faculty and staff members, students gather together to celebrate the National festival.

(ii) Teachers' Day: Institute celebrates 5th September as Birth Anniversary of Dr. Sarvepalli Radhakrishnan who was a great teacher. Students arrange various events for teachers. Social events which benefit society are also taken on this occasion.

(iii) Engineers' Day: Institute celebrates 15th September as Engineers Day in honour of Bharat Ratna Awardee Mokshagundam Visvesvaraya, who was an eminent engineer. Various technical events are organized on this day to create awareness about updates in technical field.

(iv) Birth and Death Anniversary of National Dignitaries Institute celebrates Birth and Death Anniversary of National Dignitaries as specified by Government of Maharashtra.

Cultural Programs: Members from different cultures working together to achieve a common goal and a friendly, co-operative and harmonious environment is found in the institute. Every year annual social gathering is celebrated through which students are encouraged to show culture of various states, religion, region of India as well as various skills such as rangoli, dance and mehendi. It also includes various activities such as traditional day, formal day, saree day, twin day etc. In addition to annual social gathering, departmental students' associations organize various cultural events for students of respective department.

Sports Activities: In order to create sportsmen spirit and harmony among various teams, sport activities are organized throughout the year. Students are participating in university level sports activities. It also improves physical and mental fitness of students.

7.1.9

Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

Describe the various activities in the Institution for inculcating values for being responsible citizens as reflected in the Constitution of India within 500 words.

Response:

The institute takes following initiatives for sensitizing students, faculty and staff to constitutional obligations by educating them about the values, rights, duties, and responsibilities enshrined in the

constitution.

1. Educational Programs and Workshops

1. Constitution Literacy Campaigns:

- Workshops and seminars on the constitution's preamble, fundamental rights, and duties are organised
- During interactions with the students the key constitutional amendments and their impacts are discussed
- Guest Lectures are organized on topics of relevance of constitution, importance of constitutional values and citizen responsibilities.
- These topics are discussed during annual debate competition and panel discussions engage students in meaningful dialogues about constitutional principles.

2. Curriculum Integration

1. Constitution of India is taught as a mandatory course to all FYBTech students as a part of curriculum.
2. In this course, topics related to the constitution, human rights, and civic duties are taught.
3. During this course, the students are made aware about constitutional law, civic education, and ethics and its application in everyday life.
4. Students take up discussions about importance of constitutional values like equality, justice, and fraternity.

3. Institutional Policies and Practices

- The institute follows the code of conduct applicable for the employees of the Maharashtra State Government.
- This code of conduct reflects constitutional values and promotes ethical behaviour among faculty and staff members.

4. Celebrating Constitutional Days

- Institute celebrates constitution Day (26th November).
- As a part of these celebrations Institute runs awareness campaigns using posters, digital displays, highlighting key constitutional values and citizen duties.
- Institute celebrates Republic Day, and Independence day, Birth anniversaries of Dr. Babasaheb Ambedkar, Chatrapati Shivaji Maharaj with activities that emphasize constitutional values and citizen responsibilities.

5. Practical Engagement

1. **Mock United Nations:** The student council organizes events like mock United Nations to give students a practical understanding of legislative processes and the importance of active citizenship.
2. **Adherence to RTI Act:** The Institute follows open and transparent administrative practices. All

the relevant information is voluntarily published on the Institute website as a part of RTI act.

6. Educational Materials:

- The books related to constitutional obligations, values, rights, duties and responsibilities are made available to the students in the Library.

7. Participation in Civic Engagement:

- Institute promotes participation in democratic processes such as voting and engaging in community service.

8. Partnerships and Collaborations

- Institute collaborate with local municipal corporation, Election Commission of India, etc. to conduct joint community services programs and awareness programs about democratic procedures.

These initiatives help to foster a culture of respect, responsibility, and active citizenship.

7.1.10

The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The institutional Code of Conduct principles are displayed on the website**
- 2. There is a committee to monitor adherence to the institutional Code of Conduct principles**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

Response: A. All of the above

7.2 Best Practices

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

Response:

Best Practice 1

Title: Equipping students with the skills, knowledge, and hands-on experiences to make them

employable in the competitive job market.

The objective:

- To empower students with emerging/ Industry 4.0 technologies and diverse skills
- To enhance the placement and higher education rates of the graduating students

The Context:

The institute offers core engineering programmes. The students get good placement opportunities in the core engineering areas. However, the average salaries offered by the core engineering companies are less compared to non-core / IT companies. The students aspire to get better salary packages in the core engineering domain or get placement in the consulting, management, IT product development domains.

The Practice:

The Institute follows the following structured approach to enhance the employability of students:

1. Curriculum Design

- Curriculum includes courses that are aligned with Industry 4.0 trends and demands.
- Curriculum incorporate courses that focus on developing specific skills such as data interpretation, design and analysis of systems, project management, application of fundamentals, solving complex problems, etc..

2. Experiential Learning

- Facilitate internships, projects on industry problems, site surveys, which provide students with hands-on experience in their field of study.
- Community service projects are integrated so that students get an opportunity to apply their knowledge in real-world settings.

3. Career Services

- Offer personalized career guidance to help students identify their career goals and the steps needed to achieve them.
- **Diagnostic tests are conducted** at entry level to help students understand their competency level and jobs suitable for them.
- Provide resources and support for campus placements, including resume writing workshops, interview and GD preparations, etc.
- Guidance for students to study abroad and gain international experience.
- Create mentoring opportunities and industry connections for current students with the help of alumni

4. Soft Skills Development

- Value added courses and other regular courses are part of curriculum that enhances written and oral communication skills.

- Teamwork and Collaboration opportunities are provided to the students through group projects and extracurricular activities. Post-placement trainings are conducted on Interpersonal Effectiveness and Team Building through T&P Office.
- Coursework and assignments are designed such that it challenges students to think critically and solve complex problems.
- Students are encouraged to take up leadership roles within student organizations and clubs.

5. Technological Proficiency

- Students get sufficient exposure to use essential software and digital tools relevant to their field so that they develop the proficiency for the same.
- Students get an opportunity to get acquainted with the emerging technologies such as AI, machine learning, and blockchain, etc. with the help of MOOCs, value added courses, projects, workshops.

6. Professional Development Workshops

- Workshops for writing effective resumes.
- **Pre-placement Training** of 50 hr duration is conducted to help students prepare for entrance tests of companies and higher education admissions.
- **GATE Training** of 200 hour duration is conducted to help students prepare for GATE so that they get help to prepare for M Tech admissions and PSU jobs.
- T&P Office conducts mock placement drives with the help of alumni to help students prepare for campus placements.

7. Industry Partnerships

- Industry participation at all levels such as BoS, AC, IQAC, GB so as to understand the needs of the industry.
- Guest lectures and workshops by departments
- Collaboration with industry to get student internships, project sponsorships, and collaborative research opportunities for faculty.

8. Entrepreneurship Support

- Start-up cell conducts various workshops to support students who are interested in starting their own businesses.
- A separate course on entrepreneurship and innovation
- Provide information about grants, loans, and other funding opportunities for student start-ups.

Evidence of Success:

The following table indicates the improvement in placement and higher education opportunities

Year	Students registered for placement or higher studies	Students placed	Student pursuing higher education
2018-19	306	232	51

2019-20	287	243	32
2020-2021	285	178	35
2021-2022	273	202	38
2022-2023	249	186	60

Problems Encountered:

Sr. No.	Problem	Solution
1	Skill Gap	Curriculum revision to add in-demand skills,
2	Lack of practical experience	Internships, project based learning in curriculum
3	Soft skill deficiency	Pre-placement training programs, value added courses through CCE
4	Lack of available career options and preparations required	Counselling through alumni, GATE, CET, CAT, GRE training on campus
5	Funding for conducting training programs in addition to curriculum	Funded projects through TEQIP, AICTE, establishment of sustainability funds by the Institute from IRG

Resources Required

1. Updated Curricula and Training Programs
2. Access to online learning platforms and MOOCs for continuous learning
3. Internship and Apprenticeship Programs
4. Grants, financial aid programs for Career Counseling, Training programmes

Best Practice 2

Title: Continuous efforts for holistic development of students

The objective:

- To encourage experiential learning
- To improve relationships and primary human values within the learning environment
- To enhance creativity, leadership qualities, group dynamics, emotional quotient and physical development

The Context:

To direct the engineering students towards optimum possible development and to create a global conscience towards environment, ethics, peace, cultural diversity, social responsibility, humanitarian values, co-operation that leads to life-long learning.

The Practice:

- Induction program
- Formation of various technical and non-technical clubs
- Organization of cultural, technical and sports festivals incorporated in academic calendar
- Sustainability and Green Initiative
- Technical and Non-technical value/mandatory added courses
- Celebration of national and religious festivals of India
- Blood donation, bone marrow donor drives conducted regularly
- Regular visits to old age homes
- Various drives towards social responsibility
- Funding/or arrangement for participation in university/district/state/national level

Evidence of Success:

- Successful organization and implementation of various events as per academic calendar
- University sports awards for various events
- 30% students contribute to blood donation/bone marrow drives which is improving every year
- Responsible e-waste collection since start of sustainability initiative
- Biodiversity audit conducted
- Representation of students in national level competitions and winning awards

Problems Encountered and Resources Required:

- Financial constraints
- Manpower constraints
- Inadequate Hostel facility
- Unavailability of resources 24X7

7.3 Institutional Distinctiveness

7.3.1

Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

Remarkable journey of our institute is in pioneering research projects supported by Science and Engineering Research Board (SERB) and Department of Science and Technology (DST) that harness nature-inspired designs, sustainable energy generation, and incubation initiatives driving the 'Make in India' vision in core engineering.

At the heart of our institute's ethos lies a deep commitment to sustainability, and national development. Our research endeavors, rooted in nature-inspired designs, are not merely about mimicking nature's genius, but about co-creating with it. By drawing inspiration from the intricate patterns, processes, and systems found in the natural world, we have unlocked groundbreaking solutions across various domains.

One of our flagship research areas revolves around leveraging microbial cells for sustainable energy generation from waste. Microbes, the tiny powerhouses of nature, hold immense potential in transforming organic waste into renewable energy sources. Through rigorous experimentation and collaboration, our researchers have developed cutting-edge technologies that harness microbial metabolism to produce biofuels and electricity, thereby mitigating environmental pollution and contributing to the global transition towards clean energy from waste aligned with the national mission of smart cities.

Furthermore, the Institute is committed to developing a state-of-the-art infrastructure for micro-manufacturing, incorporating all forms of manufacturing techniques: additive, subtractive, and formative supported by the Government of India's Fund for Improvement of S&T Infrastructure (FIST) project. This holistic approach ensures that the institute supports a wide range of research and development activities, from rapid prototyping to system development.

Moreover, our institute's incubation center, although in its nascent stage, stands as a beacon of innovation and entrepreneurship, nurturing the next generation of engineers and innovators while fostering the 'Make in India' initiatives. By providing a conducive ecosystem for ideation to prototyping, we empower students to translate their visionary ideas into realm prototype.

Looking ahead, the institute remains steadfast to push the boundaries of knowledge, inspire change, and make a meaningful impact on society and the environment. By harnessing the power of nature-inspired designs, sustainable energy solutions, and nurturing young student's ideas, we aspire to create a brighter, greener, and more prosperous future for generations to come.

5. CONCLUSION

Additional Information :

College has a dream of creating a benchmark in imparting education for the empowerment of students. The College aims to produce responsible citizens through extensive training and continuous all-round developmental activities. We, at Bharatiya Vidya Bhavan's Sardar Patel College of Engineering, Andheri, are committed to imbibe true national spirit and ethical values and generate/reflect the same in young generation to become responsible citizens of India.

The College involves all stakeholders by organizing parents, alumni, and employer meetings. Stakeholders are invited on various committees either to contribute in Academic or Non-Academic issues to keep students upgraded with latest happenings in respective fields. Faculty and staff also have representation on various committees where they contribute in decision making. In the nut shell, the College is working for betterment of society by involving all the stakeholders.

Concluding Remarks :

We, most cordially invite the very august NAAC Peer Team, to visit Bharatiya Vidya Bhavan's Sardar Patel College of Engineering, Andheri, to evaluate and asses the College for the accreditation purpose and process.