



# **SELF STUDY REPORT**

**FOR**

**1<sup>st</sup> CYCLE OF ACCREDITATION**

## **BABA FARID COLLEGE OF ENGINEERING AND TECHNOLOGY**

VILLAGE DEON, MUKTSAR ROAD, BATHINDA, PUNJAB

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# **1. EXECUTIVE SUMMARY**

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## **1.1 INTRODUCTION**

Baba Farid College of Engineering and Technology is an esteemed institution situated in the Malwa region of Punjab, India, which was founded in 2008. The college is approved by the All India Council for Technical Education (AICTE) and is affiliated with the Maharaja Ranjit Singh Punjab Technical University, Bathinda. Over the years, institute has gained a reputation for its exceptional performance in academics, cultural activities, sports, and technical education.

Institute emphasizes imparting practical skills to its students by providing them with live projects and hands-on training through workshops to help them meet the challenges of today's rapidly changing technical education landscape. The college's state-of-the-art labs, excellent infrastructure, and highly qualified faculty are dedicated to providing quality technical education.

The college's primary focus is on innovative research and education that caters to the current industrial scenario. Institute offers undergraduate programs in Computer Science and Engineering, Civil Engineering, Mechanical Engineering, and Electrical Engineering, as well as a postgraduate program in Computer Science and Engineering. The college strives to motivate its students towards research by organizing international conferences, seminars, and guest lectures on its campus.

Institute has filed and published 42 Patents in Indian Patent Office. Institute have signed the functional MoUs with both institutes of National Importance located in Bathinda, AIIMS & Central University of Punjab and working closely in the field of Research and Innovation. Institute has established Centre of Excellence in Industrial Automation in collaboration with FESTO, in Artificial Intelligence with INTEL and for IOT with Edgate.

To create an ecosystem of Startups & inculcate the entrepreneurial traits in the Students, institute has established an Incubation Centre at its campus namely Baba Farid School of Entrepreneurship.

Institute's mission is to foster an environment that encourages creativity, innovation, and lifelong learning. The college is committed to providing an exceptional education that prepares its graduates to excel in their professional careers and make significant contributions to society. By providing a broad range of opportunities for academic and personal growth, Institute is dedicated to creating a community of individuals who are passionate about learning and committed to excellence.

### **Vision**

To emerge as centre of excellence in technical education by providing excellent educational opportunities for overall development of students to be a good human being to serve the society.

### **Mission**

- To impart quality education and practical knowledge to the students for imbibing requisite technical and soft skills for making them future technocrats.
- To cope with Industry requirements for bridging the gap between Industry and Academia.
- To involve students in social activities like rural development, women empowerment community service, health, and hygiene awareness & environmental protection for their contribution to create, healthy, vibrant, and sustainable society.

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### Institutional Strength

- The Institute is led by visionary leaders who are passionate about achieving excellence in technical education.
- The environment is conducive and eco-friendly, providing a pleasant and sustainable setting for learning and research.
- The Institute boasts well-equipped infrastructure facilities such as laboratories, classrooms, workshops, tutorial rooms, conference rooms, hostels, and a central library, as well as individual departmental libraries.
- The Institute follows a student-centric approach and leverages ICT-enabled teaching-learning methods to enhance student engagement and outcomes.
- The Institute undergoes an annual academic and administrative audit to ensure high standards of quality and accountability.
- The faculty and staff members are highly experienced and dedicated, bringing a wealth of expertise and knowledge to the Institute.
- The Institute supports faculty members in presenting their research papers and projects both within India and abroad by providing travel grants.
- Innovative teaching-learning practices, such as outcome-based education, are implemented to prepare students for the current demands of the industry.
- The Institute has centralized teams that provide systematic training in verbal skills, logical aptitude, and personality development to equip students with the necessary skills to meet global challenges.
- Co-curricular and extra-curricular activities are actively promoted by the Institute through events such as conferences, STTPs, expert lectures, industry visits, off-syllabus projects and training, annual techno-cultural festivals (such as Techno World), and student participation in social causes.
- The Institute uses e-governance facilities to manage its operations more efficiently and transparently.
- The campus is equipped with CCTV surveillance and Wi-Fi facilities to ensure safety and connectivity for students and staff.
- The Institute has signed MOUs with various corporate and industrial partners to foster collaboration and exchange of knowledge and expertise.
- Sports activities are offered under the guidance of qualified and trained physical education trainers, promoting fitness and well-being among students.

### Institutional Weakness

- The institute's curriculum may not be regularly updated to cater to the demands of the current technology-driven job market due to its affiliation status.
- The institute has limited opportunities for international student and faculty exchange programs.

- There is a need to improve the funding for research and industry-supported labs and projects to provide students and faculty with better practical knowledge.
- Due to the inadequate presence of industries in the region, the institute's students may have limited opportunities for internships, industry liaisons, and collaborations.
- As a self-financed institution, the institute may face financial constraints in providing some facilities and resources to its students and faculty.

### **Institutional Opportunity**

- Expanding the scope and scale of research and consultancy activities within the campus.
- Collaborating with industries to establish multiple Centers of Excellence.
- Developing new areas of expertise to impart skills to students through national programs like the National Skills Qualifications Framework (NSQF).
- Fostering an environment that promotes student entrepreneurship and startup creation.
- Contributing more to green initiatives for the sustainable development of society.
- Attaining autonomy for the institution.
- Establishing faculty and student exchange programs with foreign universities.

### **Institutional Challenge**

- The college is facing a changing admissions landscape for Engineering and Technology programs as more students are opting to go abroad for their education and are pursuing programs like IELTS.
- The Engineering job market is currently slow and saturated, which presents a challenge for the college in terms of graduate employability.
- The availability of qualified Ph.D. faculty is a challenge that the college is grappling with.
- The college is working to encourage its faculty members to secure more funded projects and patents.
- Constraints on post-matric scholarships for student fees are making it difficult for the college to provide the necessary resources for developing meaningful technical infrastructure and intellectual capital.

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

Baba Farid College of Engineering & Technology is one of the premier Institution of the Malwa region of Punjab which was established in the year 2008. Institute is affiliated to Maharaja Ranjit Singh Punjab Technical University, Bathinda, Punjab. The Institute follows the curriculum provided by the University. The institute prepares the academic calendar which adheres to the university academic calendar. Academic activities are planned in college academic planner which includes time table and lesson plans preparation, mentor –mentee allotments etc. The execution of all Academic Planner activities is closely monitored to support the Continuous Internal Assessment (CIA).

Faculty members are involved in setting of question papers for Under Graduate programs of the affiliating university. Faculty is also the member of the Board of Studies of the affiliating and other universities. Choice Based Credit System (CBCS) is followed in all the programs by the college. To prepare the students for the placements and make them aware of new technologies institute offer the certificate courses in every semester

for skill enhancement of the students. For bridging the gap between academia and industry, tie-ups are done through Memorandum of Understanding (MOU) with leading industries like Festo, Intel, Infosys, Edgate etc. For overall development of students, Personality development classes are organised regularly.

Institute provides the ample opportunity for experiential learning. To give the students hands on experience institute offer project work to students. Most of the students of college are undertaking project work/fieldwork/internship in collaboration with industries. Institute takes structured feedback from all stakeholders and it is further analysed and action taken report is also prepared which is also shared with each department so that corrective measures are further taken for improvement.

Institute gives importance to cross-cutting issues related to Gender, Environmental Sustainability, Human Values and Professional Ethics by offering the courses to the students as per the curriculum. Equal opportunities are given to female students in admissions, placements, trainings, sports activities and cultural activities.

### **Teaching-learning and Evaluation**

The institute promotes student diversity by admitting students to programs through a transparent, well-managed process that complies with all regulatory/governing agency norms, including those of the affiliated university MRSPTU, Bathinda.

To establish the benchmarked connect, the student teacher ratio is maintained at 11.91:1 with the majority of faculty members possessing a good teaching experience.

The curriculum has balanced opportunities for experiential/participative learning to enhance problem-solving capabilities of students. In the institute, use of ICT enabled tools is common practice in teaching learning. The institute is committed to provide student centric learning by combining technology with traditional mode of teaching for enhancing learning experiences of students through live/field projects, industrial visits/internships, lab work, webinars, conferences, quizzes, soft skill and personality development classes, enrolment in MOOCs for ICT based collaborative learning, student presentations etc.

The institute has recruited 81.6% faculty against sanctioned posts.

The Internal Assessment System developed by the Institute is based on the guidelines prescribed by the University and the mechanism of internal assessment is transparent, time-bound and efficient. The Institute follows the bottom to top hierarchy system to address the issues and grievances related to examination and evaluation.

The institute gives special emphasis on disseminating the program outcomes (POs), program-specific outcomes (PSOs), and course outcomes (COs) amongst all stakeholders in true spirit. The attainment of outcomes is evaluated using direct and indirect attainment evaluation processes.

The institute has excellent average pass percentage of 94.64 % in B.Tech programe in last five years.

### **Research, Innovations and Extension**

Institution motivates all the students and faculty members to participate in Research, Innovations and Extension activities. The Institute promotes research activities to maintain quality education and research. There is a framed Incubation and Startup policy, IPR policy, R&D policy and a consultancy policy of the institute. The institute provides the funding to students and faculty members for carrying out research projects. The research SEED funding of Rs 2 lakh is provided to faculty for the purchase equipment, materials and books etc. for research work. The institute management encourages teachers to submit research proposals to funding agencies and to actively participate in extension activities. The Institute has received grants from funding agencies such as CSIR, MRSPTU, ISTE, AICTE and DST in organizing Conferences, Seminars and Workshops.

The Institution has signed several MoUs with reputed industries, academic institutes and corporate houses for collaborative activities. The Institute faculty members have submitted research proposals for grants in collaboration with faculty members from reputed institutes such as AIIMS Bathinda, Central University of Punjab, Bathinda, NITTTR Chandigarh, CSIR Chandigarh. The Institute also has well equipped physical infrastructure comprising Center of Excellence, and library with the subscription of the world's reputed journals from IEEE.

Institute has the self finance Incubation Centre Baba Farid School of Entrepreneurship to promote innovation and entrepreneurship among the Faculty, Staff, Research Scholars, and Students.

To systematically foster the culture of innovation among its students and faculty members the Institute has successfully established the institute innovation council (IIC) as per the norms and directives of Ministry of Education. The institution has conducted a good number of activities such as seminars and workshops on research, IPR, and entrepreneurship.

The Institute promotes extension activities by the students, faculty, and staff members in the neighbourhood community to create a holistic environment. The Institute has received awards and recognition from the Government/ recognized bodies for extension activities. Various extension and outreach Programmes were conducted by the institution in the nearby areas. Tree Plantation drives, Women Empowerment Programmes, Traffic and Drug Awareness Seminars, Blood Donation Camps, Environment protection, Cleanliness, and Sanitation drives, Awareness Seminars to sensitize the community about various gender-related issues etc are organized for creating awareness in their native villages and schools.

### **Infrastructure and Learning Resources**

Institute has a well-maintained infrastructure consisting ICT enabled classrooms, tutorial rooms, laboratories, library and workshops for an effective learning environment. The Institute believes that the actual learning of teamwork, leadership qualities and time management comes from different cultural, sports and outdoor activities. The Institute has a well-equipped gymnasium with the latest types of equipment. Indoor games like Table Tennis, Carrom, Chess etc., and outdoor courts for Basketball, Volleyball and Badminton are available on the college campus. The Institute believes that the youngsters need yoga to channelize their energy and to focus their mind and spirit in the right direction. Yoga sessions ensure better health and a healthy lifestyle for the students. The Institution provides bus facility for students and faculties. Institute frequently updates IT facilities including website, internet bandwidth online system, etc including set up of three center of excellence, Artificial Intelligence, Industrial Automation, and Internet of Things (IoT) labs, in collaboration with Intel India, FESTO India, and EdGate, respectively.

The Institute is using Integrated Library Management Software (ILMS) "E-Granthalya" of version 3.0 Rev no.

32 for day-to-day activities with open access for everyone with the help of OPAC system. The library currently provides access to 3225 number of titles, 16885 number of books, 49 project reports, 55 thesis, 8 print magazines and 20 print journals. A digital library is also available, which includes 214 IEEE e-journals, subscribed databases through Wi-Fi and fiber optic connectivity along with NDL and Open Access databases. Institute has 271 computer available for students with Student computer less than 3:1. The college always pays attention to physical and academic support facilities maintenance of infrastructure.

### **Student Support and Progression**

The Institute fosters a student community from widely differing socio-economic backgrounds and extends maximum support to students in their education and progression - notifying them of and facilitating the procurement of scholarships/ other assistance available from the government or other agencies, organizing career guidance programmes and arranging placement drives. Numerous opportunities are offered for honing their skills and talents. Scholarships and freships are provided to meritorious students and fee-concessions to deserving students.

To facilitate the holistic development and progression of the students courses are offered and activities are conducted on soft skills, entrepreneurial skills, language & communication and ICT skills. The Training & Placement Department coordinates career counseling and placement drives, conducts mock interviews, group discussions, orientations and also provides guidance for competitive examinations.

The institution has the required infrastructure and promotes active participation of the students in social and cultural activities. Institute encourage students to participate in activities related to sports and culture to foster overall development. Institute organize the annual athletic meet for its students. The Institute provides ample opportunity to develop and exhibit the talents and skills of the students through intercollegiate and interdepartmental competitions. The result of the same is that institute had received 2 times overall winner and 1 time runner-up in the Inter-Zonal Youth Festival of the MRSPTU Bathinda in last 5 years. Students' grievances and concerns are addressed by the Grievance Redressal Committee, Anti-ragging Committee and Student Council Advisory Committee. The Internal Complaints Committee is in charge of addressing complaints related to sexual harassment if any. For the Student can register their grievances on the online portal which is addressed by the concerned incumbent for the early redressal of the same.

Institute has the registered Alumni Association which meets regularly. The alumni have been actively involved in various events and activities either as resource person, judges or facilitators for extracurricular activities.

### **Governance, Leadership and Management**

The Institution Vision and Mission are reflected in its academic and administrative governance. The Institution aims to provide education that transforms the students into problem solvers and critical thinkers through the learner-centered approach.

The overall administration is supervised by the Board of Governors (BOG) which is integrated in a synchronous and flexible manner with Internal Quality Assurance Cell (IQAC). The principal is assisted by Heads of Departments (HoDs) and Faculty members in the decision-making process of the Institute

The Institute has well-defined perspective plan along with various policies & SOPs for smooth functioning of

the Institution. Principals and Head of Departments (HoDs) after in-depth discussions and by considering vision & mission, implement the strategic plan for improving academic performances of the students. A 5-year strategic plan is prepared by the institute and the overall functioning of the institute revolves around the same.

Institute has a robust methodology for planning and executing the teaching-learning process. The IQAC is consulted during the development of the action plans, which are then approved by the BoG.

Some of the welfare schemes like Group Medical Insurance, Employee's Provident Fund (EPF), maternity leave, Study leaves for pursuing Ph.D., Interest-free loans, etc. are available for teaching and non-teaching staff of the Institution. Many faculty members availed the financial support to attend conferences/workshops and towards membership fees of professional bodies during the last five years. The Institution organized Capacity building programs for faculty and students include Seminars, Conferences, Training Programs and FDPs at National and International level. Quality initiatives institutionalized by the IQAC are effective mentoring system, regular Academic and Administrative Audits, Certificate courses in collaboration with Industry. Other quality initiatives include an effective feedback system, participation in NIRF ranking, ISO certification and collaborative activities with other institutions.

### **Institutional Values and Best Practices**

The institute is co-educational where gender equality is a norm and renders equal opportunities to its students and staff without any discrimination on the basis of gender, religion, caste, provincial, urban-rural grounds.

The Institute provides secure residential facility for out stationed girls in the hostel. Female Security Guards are deputed on duty at Main gate & Gate of girl's hostel to ensure round the clock security with multiple checks at entry points.

To monitor the activities of the visitors, CCTV cameras have been installed on each building at appropriate places to cover the whole institute.

Female counsellors mentor mentees on personal and academic issues. Anti-sexual harassment committee is established for appealing against any of the issues/issues.

There is separate Air Conditioned common room and hostel in Institute with facility of indoor games like carom board and chess and also other recreational arrangements.

Streetlights in the institute are equipped with LED bulbs and to maintain power back-up, solar plant (500KW) had been installed on the institute.

The institute has six pits for rainwater harvesting. The Institution manages solid waste by placing dustbins at strategic spots in institute, waste with dustbins, treats waste water in Sewage Treatment Plant and uses it for gardening purposes. Institute restricts plastic use. Promotes eco-friendliness with restrictions on automobiles and pedestrian-friendly pathways. Landscape includes 1800 plants.

Green audits, environmental promotions activities beyond the institute for pollution-free environment awareness is a regular practice.

The Institution has facilities for Facilities for sustainable energy, waste management, water conservation,



accessibility. Institute also take initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and to Sensitize the students.

To encourage social harmony and tolerance among students, the institute hosts number of events.

Institute Organize activities for patriotism, communal harmony. Conduct medical camps, seminars on gender equality, and tree plantation programs. Educate employees on constitutional obligations through workshops.

Institute is doing its best to provide innovation eco system in institute and to provide skills to its students and faculty. Institute organizes various social activities on the ideology of Baba Farid Ji.

## 2. PROFILE

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### 2.1 BASIC INFORMATION

<b>Name and Address of the College</b>	
Name	BABA FARID COLLEGE OF ENGINEERING AND TECHNOLOGY
Address	Village Deon, Muktsar Road, Bathinda, Punjab
City	Bathinda
State	Punjab
Pin	151001
Website	<a href="http://www.bfcet.com">www.bfcet.com</a>

<b>Contacts for Communication</b>					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Jayoti Bansal	0164-2786041		0164-2786096	
IQAC / CIQA coordinator	Manish Gupta	0164-2786007	9501115418	-	iqac.bfcet@babafaridgroup.edu.in

<b>Status of the Institution</b>	
Institution Status	Private and Self Financing

<b>Type of Institution</b>	
By Gender	Co-education
By Shift	Regular

<b>Recognized Minority institution</b>	
If it is a recognized minority institution	No

<b>Establishment Details</b>	

State	University name	Document
Punjab	Maharaja Ranjit Singh Punjab Technical University	<a href="#">View Document</a>

Details of UGC recognition		
Under Section	Date	View Document
2f of UGC		
12B of UGC		

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	<a href="#">View Document</a>	02-06-2022	12	

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	Village Deon, Muktsar Road, Bathinda, Punjab	Rural	10.4	14452

## 2.2 ACADEMIC INFORMATION

<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BTech,Electronics And Communications Engineering	48	XII	English	30	0
UG	BTech,Computer Science And Engineering	48	XII	English	120	119
UG	BTech,Electrical Engineering	48	XII	English	60	29
UG	BTech,Mechanical Engineering	48	XII	English	60	11
UG	BTech,Civil Engineering	48	XII	English	60	36
PG	Mtech,Computer Science And Engineering	24	B.Tech.	English	18	14

### **Position Details of Faculty & Staff in the College**

<b>Teaching Faculty</b>												
	<b>Professor</b>				<b>Associate Professor</b>				<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	5				11				52			
Recruited	3	1	0	4	0	2	0	2	29	23	0	52
Yet to Recruit	1				9				0			

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				14
Recruited	10	4	0	14
Yet to Recruit				0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				24
Recruited	22	2	0	24
Yet to Recruit				0

### Qualification Details of the Teaching Staff

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	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.	3	1	0	0	2	0	2	1	0	9
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	27	22	0	49
UG	0	0	0	0	0	0	0	0	0	0

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	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

<b>Part Time Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	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

<b>Details of Visting/Guest Faculties</b>					
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>
	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	392	142	0	0	534
	Female	176	18	0	0	194
	Others	0	0	0	0	0
PG	Male	9	1	0	0	10
	Female	20	1	0	0	21
	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	92	16	14	41
	Female	48	2	9	24
	Others	0	0	0	0
ST	Male	0	0	0	1
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	10	12	30	25
	Female	3	1	3	3
	Others	0	0	0	0
General	Male	43	29	53	67
	Female	16	10	14	26
	Others	0	0	0	0
Others	Male	0	0	0	2
	Female	0	0	0	1
	Others	0	0	0	0
Total		212	70	123	190



<p>1. Multidisciplinary/interdisciplinary:</p>	<p>The academic and pedagogical approach of Education with Multidisciplinary components aims to develop students' abilities in various domains, such as intellectual, aesthetic, social, physical, emotional, and moral, both inside and outside of the classroom. This approach integrates formal and informal learning opportunities, research, and community engagements, promoting cross-disciplinary and interdisciplinary perspectives and practices. According to NEP 2020, affiliated colleges will be gradually phased out by 2035 and mentoring will be provided by the respective affiliating universities. Our institution has taken steps towards implementing this change, including attending related seminars and conferences, identifying benchmarks for multidisciplinary courses, and adhering to the norms and regulations of the MRSPTU affiliating university.</p>
<p>2. Academic bank of credits (ABC):</p>	<p>According to the University Grants Commission Notification issued on July 28th, 2021, an "Academic Bank Account" refers to an individual account with the Academic Bank of Credits, which is opened and managed by a student. The account serves as a repository for all academic credits earned by the student through their course(s) of study, and can be used for the purpose of awarding degrees, diplomas, certificates, etc. The Academic Bank of Credits, which is similar to the National Academic Depository, will have a dynamic website that provides all relevant information regarding its operations for the benefit of all stakeholders in higher education. The Academic Bank of Credits is a credit-based, student-centric facility that offers high flexibility. Our institution is in the process of obtaining approval to apply for registration with the Academic Bank of Credits from the relevant statutory authorities, such as the Governing Council, Academic Council, and university authorities. Additionally, courses completed by students online through national schemes like SWAYAM, NPTEL, or any specified university, will also be considered for credit transfer and accumulation.</p>
<p>3. Skill development:</p>	<p>The most effective approach for enabling students to achieve holistic development, acquire knowledge, skills, and competencies to prepare them for life and work is to combine vocational education with general education. To achieve this, we have decided to</p>

	<p>collaborate with industries to provide internships that will expose our students to work environments and give them hands-on practice. Currently, we are working on developing a series of certificate courses, depending on the prerequisites of the course the student intends to move to horizontally. Institution has established CoE on AI, IoT and ML to give the skill to students beyond the curriculum</p>
<p>4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):</p>	<p>NEP 2020 emphasizes the need to promote Indian languages, arts, and culture. The policy document elaborates on India's cultural and knowledge heritage, the significance of Indian philosophy in shaping and influencing global events, the importance of the country's multilingual and multicultural background, and the urgent need to revitalize these realms for the betterment of the nation and the world. This strategy requires a fundamental shift from our previous educational system, which has, in general, undervalued traditional Indian knowledge. In addition to classroom lectures, standard textbooks on the Indian Constitution and cultural heritage have been provided to students. Through the efforts of various clubs, competitions are regularly conducted in regional languages on contemporary topics related to the environment, energy conservation, etc., as well as topics on India's cultural and ethnic values.</p>
<p>5. Focus on Outcome based education (OBE):</p>	<p>In order to promote student-centered education and outcome-oriented teaching and learning, the institute has adopted Outcome Based Education (OBE) and has formulated Programme Outcomes (POs), Programme Specific Outcomes (PSOs), and Course Outcomes (COs) for all undergraduate and postgraduate programs. The POs are based on the graduate attributes formulated by the Washington Accord and adopted by the National Board of Accreditation, while the PSOs are specific outcomes that graduates must acquire upon completion of the program. These outcomes have been communicated to all stakeholders for all UG and PG programs.</p>
<p>6. Distance education/online education:</p>	<p>There has been a noticeable shift in the methods of teaching and learning across the globe, with a move away from solely classroom-based instruction to a combination of classroom and online learning. This trend can be seen in the growing popularity of online education platforms such as MOOCs. India is also embracing this new approach and we actively</p>

encourage our students and faculty to enroll in and take exams through initiatives such as SWAYAM-NPTEL. In addition, we provide opportunities for students to engage in full-time internships in suitable industries, which not only helps them acquire the skills required by the industry but also offers promising career prospects.

### **Institutional Initiatives for Electoral Literacy**

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	In-progress
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?	We aim to form an Electoral Literacy Club which will provide a forum for students to involve in engaging activities and hands-on experiences to create awareness about their electoral rights and acquaint them with the registration and voting processes.
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.	The Election Commission of India seeks to promote a culture of electoral participation among young and future voters through the ELC initiative. These clubs will provide a platform for students to engage in interesting activities and gain hands-on experience that will sensitize them to their electoral rights and familiarize them with the electoral process, including registration and voting. Seminars will also be planned annually by this club to inform students about their rights and motivate them to participate in elections. Additionally, this club will also encourage students to participate in competitions organized by SVEEP to develop their skills and confidence.
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.	We have organized two seminars at our Institute on the occasion of Voter's Day in association with Election Commission of India to create awareness among Students & Staff.
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.	NA



## Extended Profile

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### 1 Students

#### 1.1

Number of students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
691	582	786	984	1171

File Description	Document
Upload Supporting Document	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>

### 2 Teachers

#### 2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 130

File Description	Document
Upload Supporting Document	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>

#### 2.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
58	59	64	67	89

### 3 Institution

#### 3.1

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
443.31	383.70	591.24	746.58	892.71

File Description	Document
Upload Supporting Document	<a href="#">View Document</a>

## 4. Quality Indicator Framework(QIF)

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### Criterion 1 - Curricular Aspects

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#### 1.1 Curricular Planning and Implementation

##### 1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

###### Response:

Baba Farid College of Engineering & Technology is affiliated to Maharaja Ranjit Singh Punjab Technical University & the Institute follows the curriculum provided by the University. The institute prepares the academic calendar which adheres to the university academic calendar. Further, all the detailed activities are planned in academic planner including all processes involved in creation as well as smooth execution as mentioned below-

- **Academic Calendar:** Academic calendar is made considering all the academic activities date wise in line with the University Academic Calendar. It includes Semester commencement dates, induction program, MST dates, University Examination/Practical dates and is shared with students and faculty members and displayed on College Notice board and institutional website.
- **Workload & Timetable:** HOD's allocate the courses to faculty members according to their area of specialization, and interest. Before allotment of workload consent is taken from respective faculty. Timetable is prepared as per the teaching scheme. The timetable is shown on the departmental notice board and shared on LMS (Learning Management System).
- **Lesson Planning and Course File Preparation:** For preparing lesson plans, faculty divide the syllabus into topics and its mapping is done with COs (Course Outcomes) and POs (Program Outcomes). The faculty members prepare the Lesson Plan by following various teaching methodologies such as student Presentations, project works, field visits etc.
- **Mentor-Mentee Allotment:** It is done at the beginning of semester for regular guidance and mentoring of students.
- **Certificate courses and live projects** – The certificate courses are finalized at the beginning of semester based on feedback given by different stakeholders and live projects are finalized through presentations by students at the departmental/Institution level.
- **Assessment and Monitoring:** The various assessment methods used are MST, Class Tests/Quizzes, Assignments, Student Presentations, Project Works/Live Projects, and Practical Performance in Labs.

The academic planner activities (Planning, Implementation and Monitoring for Continuous Internal Assessment (CIA) ) are closely monitored by Principal which are as follows:

- MSTs are conducted, and answer sheets are checked well in time for uploading marks on LMS to maintain transparency.
- Continuous evaluation of students is carried out by Quizzes and Assignments.
- Result Analysis is done after MST.
- Course wise CO, PO attainment is regularly monitored for MSTs, assignments, quizzes and student participation during and at the end of semester.
- Continuous evaluation of Certificate Courses/ Live Projects is done.

The execution of all activities of Academic Planner is closely monitored by the principal to support the CIA.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 1.2 Academic Flexibility

**1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)**

**Response:** 90

File Description	Document
List of students and the attendance sheet for the above mentioned programs	<a href="#">View Document</a>
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>
Evidence of course completion, like course completion certificate etc. Apart from the above:	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

**1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years**

**Response:** 69.96

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
690	580	540	559	579



File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>

## 1.3 Curriculum Enrichment

### **1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the Curriculum**

#### **Response:**

Institute gives importance to cross cutting issues related with Gender, Environmental Sustainability, Human Values and Professional Ethics. Although these are covered in the curriculum, the Institute also made all efforts by organizing various activities, which contribute to sensitizing students towards these issues.

#### **Gender:**

Gender related issues are addressed directly or indirectly through the curriculum taught to the students which includes subjects like Environmental Sciences (BMNCC0-002) that provides knowledge about human rights, women and child welfare whereas Universal Human Values (BHSMC0-026) inculcates about the Harmony in the Family and Society. The Institute follows the rules and regulations directed by the statutory regulating bodies and encourages students and faculty to participate in various activities organized by the Institution on gender equity, health care, women rights etc.

#### **Environment and Sustainability**

Subjects like Environmental Sciences (BMNCC0-002), Environmental Pollution (BCIE0-F91), Advance Environmental Engineering (BTCE-815) and Energy Science and Engineering (BCIESI-302) are offered to students as per the curriculum. These Subjects emphasize on various topics related to environment and sustainability such as environmental and climate issues, environmental pollution & control, human population and environment, solid waste management, Social issues and environment, introduction to sustainability & environment, sustainability and environmental trade-offs, tools for measuring sustainability. In addition, these subjects also provide knowledge about pollution control, hazardous global environmental issues and administrative control on engineering.

#### **Human Values and Professional Ethics:**

Subjects like HVPE (BHUMA0-103), Organizational Behavior (BCSES1-405) and Drug Abuse (BHUMA0-104) are included in the curriculum. The content in the above subjects focuses on meaning of the values, ethics and their relation with religion, distinction between social and cultural values, meaning and types of the professional ethics, foundations of individual behavior, values & beliefs, professional rights, attitude, parent-teacher-health professional coordination, professional and technical communication to strengthen their personality and understanding of Ethics and Social responsibility.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

<b>1.3.2 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)</b>	
<b>Response:</b> 47.9	
<b>1.3.2.1 Number of students undertaking project work/field work / internships</b>	
Response: 331	
File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>

## 1.4 Feedback System

<b>1.4.1 Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website</b>	
<b>Response:</b> A. Feedback collected, analysed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website	
File Description	Document
Feedback analysis report submitted to appropriate bodies	<a href="#">View Document</a>
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	<a href="#">View Document</a>
Action taken report on the feedback analysis	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	<a href="#">View Document</a>

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Enrolment percentage

**Response:** 43.22

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

2021-22	2020-21	2019-20	2018-19	2017-18
212	70	123	190	183

##### 2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
348	348	348	378	378

#### File Description

#### Document

Institutional data in the prescribed format

[View Document](#)

Final admission list as published by the HEI and endorsed by the competent authority

[View Document](#)

Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.

[View Document](#)

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

[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:** 76.86

##### 2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

2021-22	2020-21	2019-20	2018-19	2017-18
152	29	57	102	125

**2.1.2.2 Number of seats earmarked for reserved category as per GOI/ State Govt rule year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
117	117	117	127	127

<b>File Description</b>	<b>Document</b>
Institutional data in the prescribed format	<a href="#">View Document</a>
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	<a href="#">View Document</a>
Copy of communication issued by state govt. or Central Government indicating the reserved categories(SC,ST,OBC,Divyangjan,etc.) to be considered as per the state rule ( Translated copy in English to be provided as applicable)	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

## 2.2 Student Teacher Ratio

**2.2.1 Student – Full time Teacher Ratio  
(Data for the latest completed academic year)**

**Response:** 11.91

## 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 experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process**

**Response:**

In the institute, use of ICT enabled tools is common practice in teaching learning. The institute is committed to provide student centric learning by combining technology with traditional mode of teaching for enhancing learning experiences of students by using following methodologies of teaching:

**1. Experiential Learning:** Various student centric methods under experiential learning are:

- **Live projects/major projects:** Live projects and Major Projects demonstrations are used by the faculty to cover some particular topic in the class room or lab. These live projects are skill based and it gives the practical exposure to students.



**Faculty Demonstrate with Project**

- **Institutional and Industrial trainings:** All undergraduate students are mandatory to undergo institutional and industrial trainings as per their study schemes.



### Certificate of Industrial Training

- **Impact Lectures/ workshops by Industry Experts:** The faculty invites the eminent personalities from industry for covering some course contents by the experts from industry which results in enhancing their skills.



### STAAD Pro Workshop

- **Guest Lectures:** The faculty organizes guest lectures by inviting academicians from the institutions/universities of national repute for covering some course contents and their applications through offline and online platforms.





Guest lecture on Network Security

**Industry Visits:** The faculty identifies the industry according to the need of course and plans the visits on regular basis which provides the practical exposure of theoretical contents.



Visit to DMW (Locomotive Industry) Patiala



- **Field Visits/Survey:** As per the need of the curriculum, the department faculty organizes field visits to nearby places to give the practical experience to students. The faculty of civil engineering organizes a survey camp after fourth semester end examinations.



**Visit to Water Treatment plant in Bathinda City**



## Survey at Field near Hi-Tech, Bathinda

**2. Participative Learning:** Various methodologies adopted to make the learning more participative are:

- **Peer to peer learning:** To make this learning more effective, each course teacher makes teams of students (minimum two) from the group (10-12 students) assigned to them. Each team consists of advance and slow learners. Afterwards, each team decides topics to be delivered or presented by Power point presentations during class under the guidance of the respective teacher.

## Peer to Peer learning

- **Group activities:** Learning is made participative by incorporating activities including quizzes, debates, group discussions, presentations, club activities, flip classroom teaching etc.

## Group Discussions

**BFCET Students participating in quiz held on Baba Farid Aagman Divas**

## **PDP activity**

- **Workshops/ Conferences:** Students participation in workshops and conferences organized by the departments enhance their learning.







- **MOOCS:** Students are encouraged to enroll for MOOCs for ICT based collaborative learning through online learning platforms like SWAYAM, NPTEL, Coursera, edX etc.

**3. Problem based learning:** Problem solving methodologies integrated in teaching-learning are as follows:

- **Projects:** Opportunities are provided to students to implement their ideas selected for funding as per students project policy of the Institute. Mentors are there to guide the students during working of projects. Further a no of ideas are converting into granting and publishing of patents. A total of 42 patents have been published out of which 06 had been granted by the students of BFCET till date. The Institute has currently 5 startups in Incubation and 2 startups got selected to exhibit at G20 Amritsar held on 15-17th March 2023.





**INTELLECTUAL  
PROPERTY INDIA**

PATENTS | DESIGNS | TRADE MARKS  
GEOGRAPHICAL INDICATIONS



सत्यमेव जयते

भारत सरकार  
GOVERNMENT OF INDIA

पेटेंट कार्यालय  
THE PATENT OFFICE

पेटेंट प्रमाणपत्र  
PATENT CERTIFICATE  
(Rule 74 of The Patents Rules)

क्रमांक : 011152295  
SL No :



पेटेंट सं. / Patent No. : 410949  
आवेदन सं. / Application No. : 202011024874  
फाइल करने की तारीख / Date of Filing : 13/06/2020  
पेटेंटी / Patentee : BABA FARID COLLEGE OF ENGINEERING AND  
TECHNOLOGY

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित A ROAD SHOULDER LAYING & RECLAIMER MACHINE नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख जून 2020 के तेरहवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled A ROAD SHOULDER LAYING & RECLAIMER MACHINE as disclosed in the above mentioned application for the term of 20 years from the 13<sup>th</sup> day of June 2020 in accordance with the provisions of the Patents Act,1970.



अनुदान की तारीख : 03/11/2022  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

**टिप्पणी** - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, जून 2022 के तेरहवें दिन को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगा।

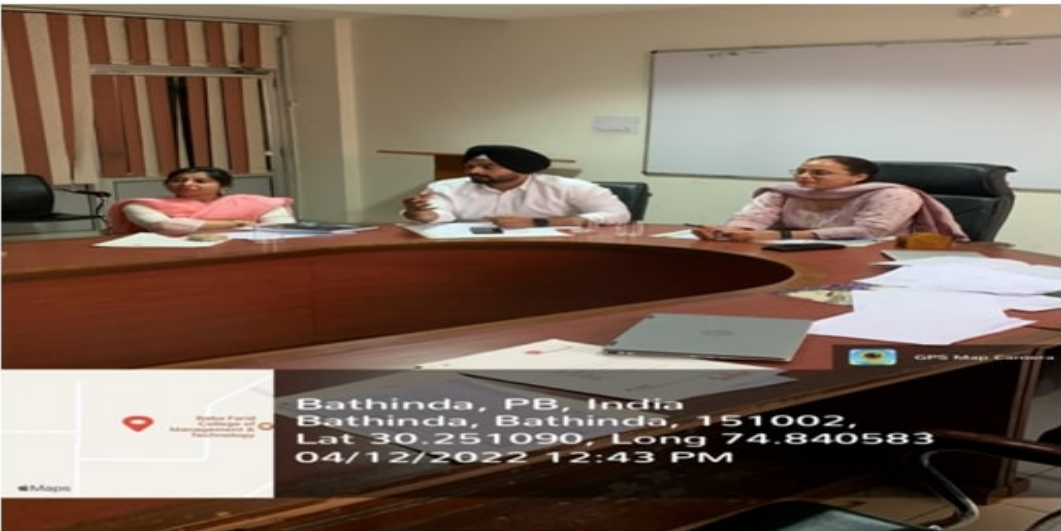
**Note.** - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 13<sup>th</sup> day of June 2022 and on the same day in every year thereafter.



## Granted Patent

- **Internal Hackathons:** Platforms including participation in Hackathons are provided to students for presenting ideas based on real-life problem and their subsequent solution.







<b>File Description</b>	<b>Document</b>
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.4 Teacher Profile and Quality

### 2.4.1 Percentage of full-time teachers against sanctioned posts during the last five years

**Response:** 81.6

#### 2.4.1.1 Number of sanctioned posts year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
70	72	77	81	113

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

**2.4.2 Percentage of full time teachers with NET/SET/SLET/ Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)**

**Response:** 12.46

**2.4.2.1 Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
10	9	8	7	8

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	<a href="#">View Document</a>
Institution data in the prescribed format	<a href="#">View Document</a>
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awarded by UGC recognized universities	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

**2.5.1 Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient**

**Response:**

The Internal Assessment System developed by the Institute is based on the guidelines prescribed by the University.

Internal assessment process comprises of assessment of students during lecture hours and assessment

during lab hours.

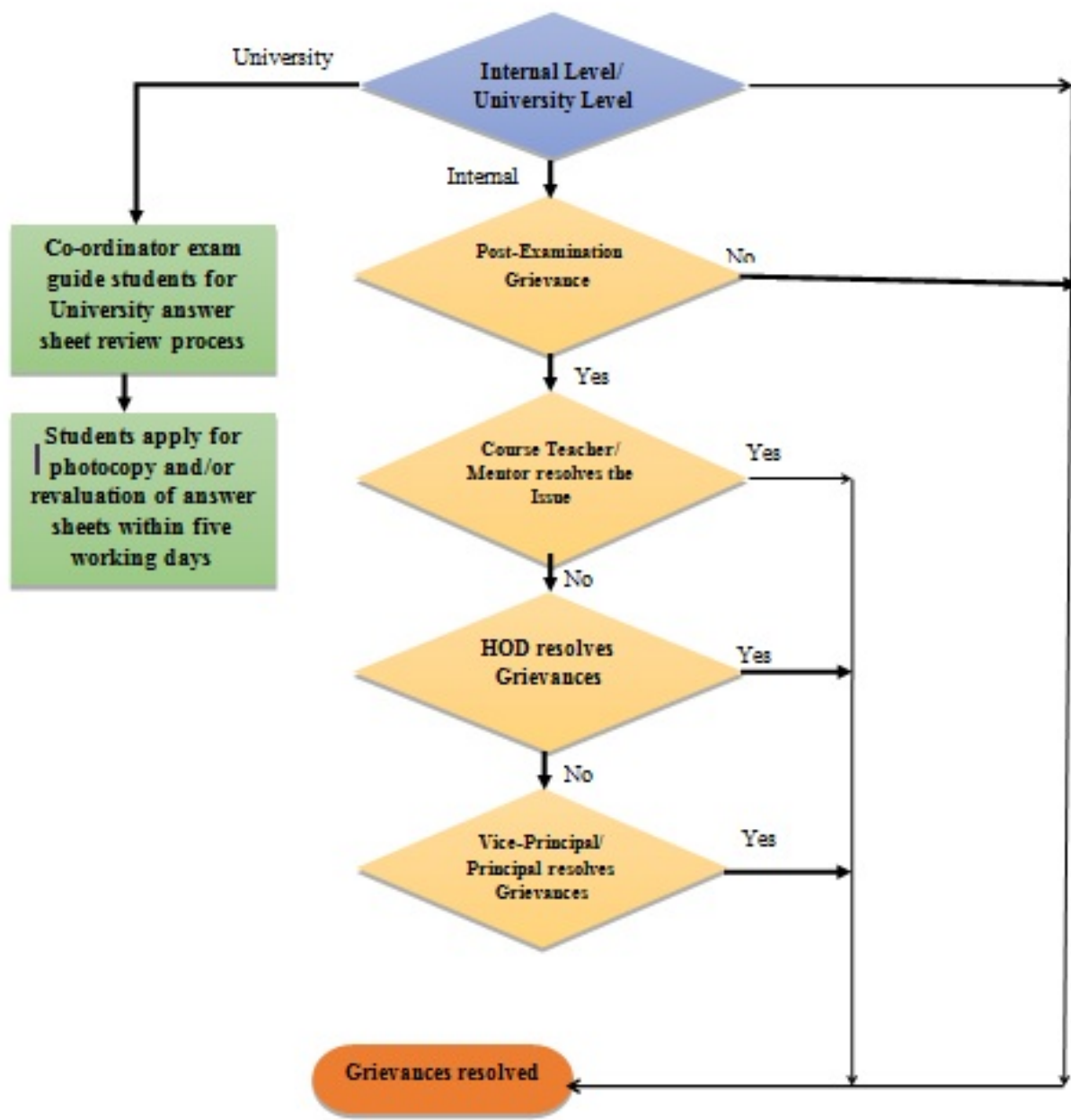
### **To ensure transparency**

- Internal Assessment criteria is shared with students during Induction programme at the start of every academic session.
- The complete Academic Planner as well as Lesson Planner and question paper pattern of MSTs is circulated to the students at the beginning of the Semester .
- Evaluated answer sheets are shown to the students, their signature are taken and grievances, if any, are resolved by the concerned teacher, if necessary. In addition to this, the concerned teacher discusses the mistakes done in the answer sheets with the students personally so that they can improve in the upcoming examinations.
- Final marks are displayed on the LMS after the verification by the teachers and the students.

### **Grievance redressal system**

- **Redressal Mechanism for Pre-Examination Grievances:** For grievances like missing roll-no in sitting plan reported by the student is solved by Exam cell.
- **Redressal Mechanism during Exam Grievances:** Any discrepancy/doubt in question paper like missing/misprint equations/diagrams/questions reported by student is solved by Coordinator, Exam in coordination with the respective subject immediately.
- **Redressal Mechanism Post Examination Grievances:** Grievances related to final assessment to be uploaded on University portal are resolved first through concerned teacher, HOD and finally by the Principal if required





File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 2.6 Student Performance and Learning Outcomes

**2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website**



**Response:**

Program outcomes represent broad statements that include many areas of inter-related knowledge and skills developed over the duration of the program through a wide range of courses and experiences. These define various traits of behavior, and incorporate multiple learning experiences. Program-Outcomes (Pos) of all professional Programmes in engineering are identified at the national level by the concerned accrediting agency All India Council for Technical Education (AICTE)

Course Outcomes are a comprehensive set of learning goals that reveal the capabilities needed to meet the challenges of that course. Each course has defined course objectives and course outcomes, which are included in the particular course syllabus as specified by the affiliated University Maharaja Ranjit Singh Punjab Technical University (MRSPTU).

Program-Outcomes (POs)/Program-Specific-Outcomes (PSOs), Course Outcomes (Cos) of each Program have been stated in alignment with Program Educational Objectives (PEOs) by the institute as per the recommendations and defined by the affiliating university MRSPTU and statutory body AICTE.

The Institute ensures that the course outcomes are attained through dissemination of theoretical and practical knowledge. It is expected that the student is able to apply the knowledge at the end of the course.

In order to create awareness amongst the learners COs and POs are disseminated to the stake holders through the following channels:

- Digital Media
  - Institute website (www.bfcet.com)
  - Institutional LMS
- Print Media
  - MST Question papers
  - Course files
- Outdoors
  - Department Offices
  - Department Corridors
  - Laboratories
- Activities
  - Faculty Orientation Program
  - Student Induction Program

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

**2.6.2 Attainment of POs and COs are evaluated. Explain with evidence in a maximum of 500 words**

**Response:**

The institute follows outcome based education (OBE) system in which the main focus is on enabling the students to apply their knowledge at the end of a course or program.

The Institution has a well-defined mechanism to track and monitor the attainment levels for Program Outcomes (POs) and Course Outcomes (COs).

There are following two steps to evaluate the attainment of COs, POs and PSOs:

- Course outcome attainment
- Program outcomes (POs) and PSOs attainment

### **Course outcome attainment**

The course outcomes attainments are assessed through direct attainment procedure. The evaluation consists of internal evaluation by the institute and semester end examination (external examination) conducted by the university.

For the theory subjects, the weightage to internal examinations are 40 % and semester end examinations are 60% as prescribed by the affiliated university MRSPTU. Internal assessment of a theory course is based on two mid semester test, assignments and quizzes. The mid semester question papers, assignments and quizzes are mapped with COs for specific course and score obtained by the student indicates the measurement parameter for different levels.

For the practical Labs, trainings (workshops and Industrial) and projects (minor and major) the weightage to internal examinations are 60% and semester end final external practicals are 40%. For practical internal evaluation, continuous evaluations of students in labs and viva-voce are considered. Internal evaluation of trainings and projects is monitored through presentations, viva-voce, and reports submitted by the student after the completion of the training.

Semester end examinations are conducted and arranged by the University. External assessment is graded by the university and the same has been considered.

Attainment Level of courses of a program is set as below:

Target level 1: 50% students must score 60% and above

Target level 2: 70% students must score 60% and above

Target level 3: 80% students must score 60% and above

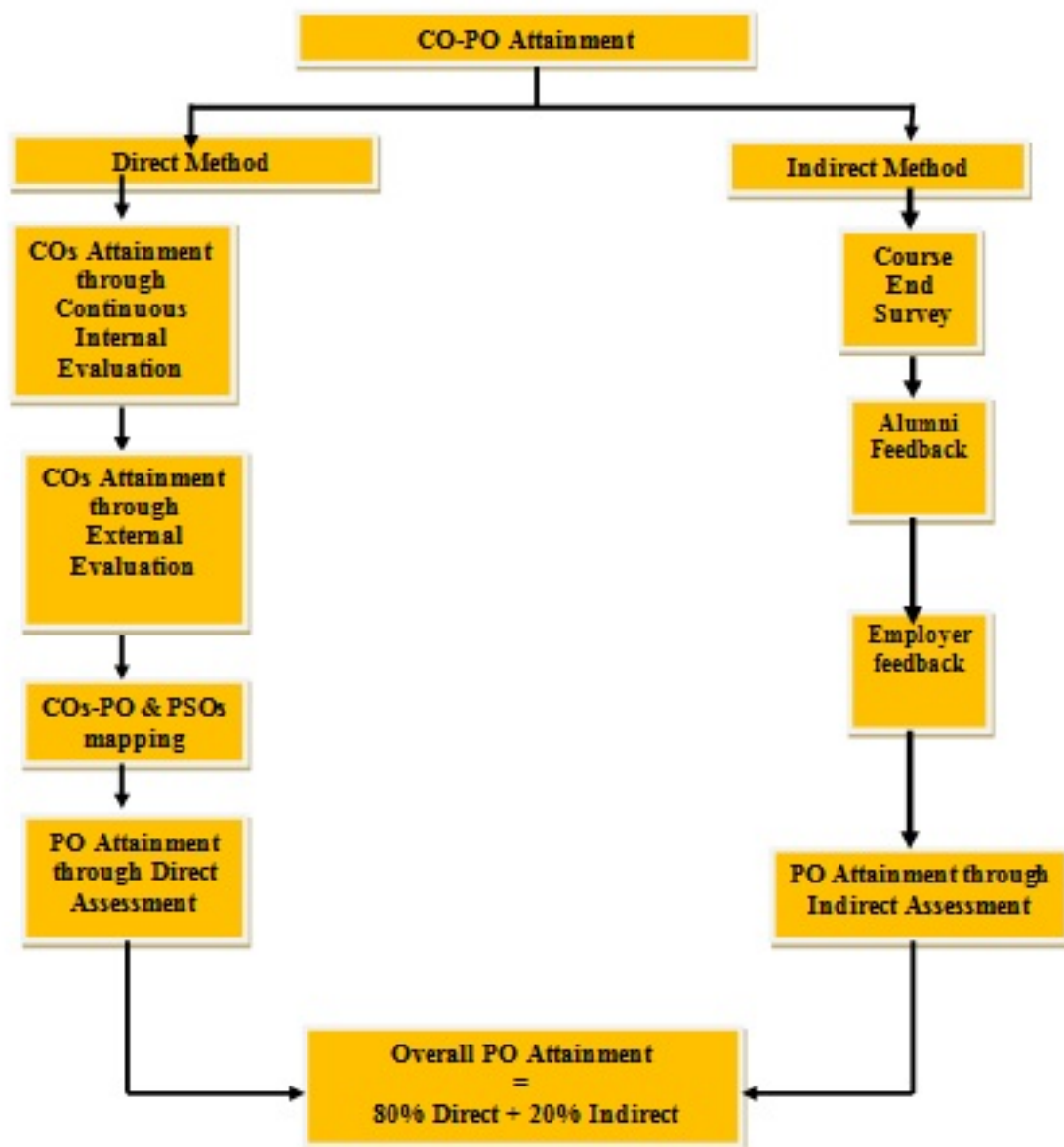
### **Program outcomes (POs) and PSOs attainment**

The assessment procedure used to evaluate program outcomes and program-specific outcomes is broadly classified as direct and indirect attainment.

The process of attainment starts with correlating COs, POs and PSOs on the scale of 0 to 3, 0 being no correlation, 1 being low correlation, 2 being medium correlation and 3 being high correlation. A mapping matrix of COs, POs and PSOs is prepared for all the courses in the program.

- **Direct assessment:** The COs of each course is mapped to the POs and PSOs. On the basis of the calculations of attainment of individual COs of each course, POs and PSOs attainment is calculated for that course and subsequently for all the courses in that program.
- **Indirect assessment:** It includes course end survey conducted from exist students at the end of the session, alumni survey and employer survey once in a year.

Final POs and PSOs attainment is calculated by multiplying direct assessment with a weightage of 80% and indirect assessment with a weightage of 20%.



Flow chart of COs-PO & PSOs attainment

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 2.6.3 Pass percentage of Students during last five years (excluding backlog students)

**Response:** 94.64

#### 2.6.3.1 Number of final year students who passed the university examination year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
133	177	270	286	353

#### 2.6.3.2 Number of final year students who appeared for the university examination year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
169	183	283	294	359

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Certified report from Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree programwise / year-wise.	<a href="#">View Document</a>
Annual report of controller of Examinations(COE) highlighting the pass percentage of final year students	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

### 2.7.1 Online student satisfaction survey regarding teaching learning process

**Response:** 3.85

File Description	Document
Upload database of all students on roll as per data template	<a href="#">View Document</a>



## Criterion 3 - Research, Innovations and Extension

### 3.1 Resource Mobilization for Research

**3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)**

**Response:** 33.32

**3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
13.22660	7.19000	9.50000	3.40000	0

**File Description**

**Document**

Upload supporting document

[View Document](#)

Institutional data in the prescribed format

[View Document](#)

### 3.2 Innovation Ecosystem

**3.2.1 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 meticulously designed an innovation and startup ecosystem for creation and transfer of knowledge.

- IPR Cell of the Institution organizes numerous programs to sensitize the students in various IPs (Patent, Trademark, Design, Copyright).
- Institute IPR Policy was released by Head Facilitation Centre Punjab in 2017 followed by creation of IPR Cell. Under this policy, Institute provides financial assistance to faculty and students and further assistance in technology transfer.
- Institute has established the Institute Innovation Council, an initiative by Ministry of Education for creating an ecosystem and mechanism which will foster the culture of Innovation.
- Institute has the Live Project Policy for the students wherein upto Rs 50,000/- grant is given for developing the Project.
- Institute also takes pride in its self-financed Incubation Centre with the name of Baba Farid School of Entrepreneurship (BFSOE) which is the only such Centre in the 150 Kms radius of the region. It is a registered entity under the Societies Registration Act, 1860. Incubation Centre was established in 2017 whereas it was registered as a separate entity in 2021 to promote innovation and

entrepreneurship among the Faculty, Staff, Research Scholars, and Students. To accomplish its goal, it facilitates incubation to new enterprises and students with innovative technologies by admitting them and providing them physical, technical and networking supports & services.

- Institute has been regularly organizing Entrepreneurship Awareness Camps individually as well as in association with government agencies like EDI, DST etc. BFSoE actively organize activities in collaboration with Government of Punjab like Startup Punjab Yatra, Expert Lectures, Innovation Mission Punjab etc. to give ample exposure to the students for exploring entrepreneurship as a career. Institute regularly organizes various competitions such as Business Plan Competition, iCan (Ideation Contest), Hackathons, etc. for identifying grassroots level innovators and support their innovations. In these initiatives, more than 1000 students have benefited.
- Institution is also registered-on YUKTI Portal and regularly update status regarding startups and innovations on the portal.

#### Evidence of Success

- BFSoE has currently 5 startups in Incubation Centre:
  - Angelic Aroma (Recommended for Grant-in-aid of Rs 50,000/- under SHE Initiative by PSCST, Chandigarh)
  - Chouhan Agro Industry
  - The Powpupps
  - Shield Agrotech
  - Pillibanga Electronics Manufacturing Pvt Ltd
- Two startups were selected to exhibit in G20 Summit held on 15-17 March 2023 at Amritsar.
- Till now Institution has successfully published 42 Patents out of which 06 are granted.
- Institute was bestowed 3-star ratings by IIC in 2020-21 and 2021-22, for organizing the activities on Innovation and Entrepreneurship.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### **3.2.2 Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years**

**Response:** 45

#### **3.2.2.1 Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
8	15	3	10	9

<b>File Description</b>	<b>Document</b>
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 3.3 Research Publications and Awards

**3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years**

**Response:** 0.1

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

2021-22	2020-21	2019-20	2018-19	2017-18
5	3	2	2	1

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

**3.3.2 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years**

**Response:** 0.24

**3.3.2.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year wise during last five years**



2021-22	2020-21	2019-20	2018-19	2017-18
29	1	0	1	0

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

### 3.4 Extension Activities

#### 3.4.1 Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.

##### Response:

Extension activities are an integral part of higher education and serve as a platform for sensitizing students to social issues, enabling them to make a positive impact on society. Institute promotes various extension activities under various schemes like Unnat Bharat Abhiyaan, NSS, NCC and with other different agencies/NGOs **where students and faculty members participate with full enthusiasm which helps** students to sensitize on social issues and holistic development. Approximately 75-80% of students and 90-95% of faculty are involved in these activities. Following are the detail of some of the neighbourhood activities under:

**Unnat Bharat Abhiyaan (UBA):** Institute Selected under Unnat Bharat Abhiyaan, a flagship program of the Ministry of Education(MoE) Government of India in year 2021. A group of enthusiastic students, accompanied by their faculty members, have taken up the noble cause of adopting a cluster of villages in their vicinity. Following villages named Peori, Daula, Buladewala, Jangirana and Bhokhra had been adopted under UBA. The students regularly visit these villages, striving to identify the pressing needs of the communities residing there. Institute organize health checkup camps to spreading awareness about the importance of water conservation and the hazards of Drug Abuse.

Year	Number of Activities
2021-22	6
2022-23	2

- **NSS:** The NSS Unit of institute have gone above and beyond in their efforts to create awareness among students about social issues. Tree Plantation drives, Women Empowerment Programmes, Traffic and Drug Awareness Seminars, Blood Donation Camps, Environment protection, Cleanliness and Sanitation drives, Awareness Seminars to sensitize the community about various gender related issues etc are organized. These activities are organized for creating awareness in

their native villages and schools.

Year	No. of Activities
2021-22	18
2020-21	1
2019-20	10
2018-19	10
2017-18	5

- Blood Donor Squad:** The Institute's Blood Donor Squad is a proactive community of students and faculty who are committed for saving lives through blood donation. The squad maintains a comprehensive database of blood groups, which is shared with hospitals, blood banks, and NGOs throughout the city. Donor Squad reaches out for such needy persons up to the radius of 100 km. All students and staff members of Institute are members of the squad. During the COVID -19 pandemic Blood Donor Squad played an active role. Squad fulfill the need of Blood/Plasma to needy Patents during COVID -19 pandemic. Vaccination camps were organized in institute to ensure as many people as possible can get vaccinated and protect themselves and others from COVID-19. Furthermore, the Blood Donor Squad organizes numerous blood donation camps in nearby locations to encourage more people to donate blood in collaboration with Indian Red Cross Society.

Year	No. of Blood Units Donated
2021-22	64
2020-21	50
2019-20	48
2017-18	86

**NCC:** Institute is affiliated with 20 Punjab Bn NCC of Patiala Group Headquarter. Through its association with 20 Punjab Bn NCC, the institute has conducted numerous activities such as Annual Training Camp (ATC), Swatch Bharat Camp etc. Some of our cadets participated in National Republic Day Parade. Cadets regularly participate in ATC, District Level Independence & Republic Day Parade, Ek Bharat Sreshth Bharat Camp, Pre RDC Camp, Basic Leadership Camp, Thulsena Camp etc. In last year, eight Cadets appeared for C certificate examination and six Cadets cleared the exam.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 3.4.2 Awards and recognitions received for extension activities from government / government recognised bodies

**Response:**

Government and government-recognized bodies often acknowledge and award the efforts of institutions and individuals involved in extension activities. There are various awards and recognitions that institute received for their extension activities from government/government recognized bodies.

The Indian Red Cross Society is a humanitarian organization that aims to provide assistance and support to people in times of emergency and distress. Institute received various awards and recognitions from Indian Red Cross Society. Society gave the recognition letters for Blood donation camps, health checkup camps etc. organized by the Institute

**NCC:** Institute is also affiliated with 20 Punjab Bn NCC of Patiala Group Headquarter, boasts a unit of 53 commendable cadets. Through its association with 20 Punjab Bn NCC, the institute has conducted numerous impactful initiatives such as Swachh Bharat Abhiyan, Day Celebration and active participation in Independence and Republic Day Parades. As a result of these endeavors, the institute has received several awards and recognitions from 20 Punjab Bn NCC such as

- Smooth conduct of ATC-116 in BFCET from 31 August, 2022 to 07 September, 2022.
- Awarded for Participation in Principal Conclave conducted at MRSPTU on dated 26 July,2022.
- Reognised for participation in Bhangra under Ek Bharat Shreshtha Bharat on dated 11 June, 2022.
- Awarded for Inter Institution Firing Competition
- Student Chandan Singh had participated in National Republic Day Parade 2019 New Delhi, and also participated in Youth Exchange Program in 2019 and received recognition letter.

**Government/Non-Government School:** The Institute received various recognitions from Government school for its outstanding efforts in conducting skill workshops for students. Skill workshops were conducted in 23 Schools in 2022 wherein more than 1000 students benefited from these workshops . Received various recognitions from from Government/Non-Government Schools such as

1. GSSS Jhumba gave recognition letter for organizing computer and skill workshops for students

3. Police Public School, Bathinda gave recognition letter for organizing worksop on Robotics and Artificial Intelligence for students

**Unnat Bharat Abhiyaan:** Institute Selected under Unnat Bharat Abhiyaan, a flagship program of the Ministry of Education(MoE) Government of India in year 2021.As part of the Unnat Bharat Abhiyaan initiative, the institute has adopted five villages and has been actively involved in identifying and addressing the pressing needs of the communities residing there. Through regular visits to these villages, institutes have organized health checkup camps and raised awareness on prominent issues such as water conservation and drug abuse. The institution has received various recognitions from the adopted villages like.

1. From Sarpanch Gram Panchayat Village Peori for Awareness Rally on Water Conservation under Unnat Bharat Abhiyan

2. From Sarpanch Gram Panchayat Village Daula gave recognition letter for Awareness Rally on Say Not

to Plastic under Unnat Bharat Abhiyan	
<b>File Description</b>	<b>Document</b>
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

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

**Response: 49**

**3.4.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
21	1	10	11	6

<b>File Description</b>	<b>Document</b>
Institutional data in the prescribed format	<a href="#">View Document</a>
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

### 3.5 Collaboration

**3.5.1 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: 49**

<b>File Description</b>	<b>Document</b>
List and Copies of documents indicating the functional MoUs/linkage/collaborations activity-wise and year-wise	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

## Criterion 4 - Infrastructure and Learning Resources

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### 4.1 Physical Facilities

#### 4.1.1 The Institution has adequate infrastructure and other facilities for,

- teaching – learning, viz., classrooms, laboratories, computing equipment etc
- ICT – enabled facilities such as smart class, LMS etc.

**Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)**

#### **Response:**

The Institute has a well-maintained infrastructure as per the regulatory body consisting of ramps for physically impaired students, ICT-enabled classrooms, tutorial rooms, laboratories, a library, workshops etc. for an effective learning environment. The institute has adequate infrastructure described as follows:

#### **Class Rooms**

- All the 24 Classrooms are ICT enabled with air-conditioning facilities. Each department is equipped with smart class.

#### **Laboratories:**

The Institute has 39 laboratories and a computer center with modern equipment to polish the students' technical skills.

- Each laboratory is well equipped with sufficient number of experimental setups along with required softwares.
- The Institute has Central workshop to impart the practical training to the students. The various shops of Workshop are fully equipped and it also enhance skills and basic knowledge of students which they implement for their project works.
- The Institute has three center of excellence, AI, Industrial Automation, and IoT, in collaboration with Intel India, FESTO India, and EdGate, respectively, available to students. These labs are designed to provide students with the latest technology in their fields of study.

#### **Computing Equipments:**

Institute has Wi-Fi network connectivity with bandwidth of 150 Mbps available in all academic and administrative areas, library, faculty rooms and hostels. 271 computers are available for students in different laboratories. Four servers with up to date configuration are available to cater various facilities like LMS, cameras, library. Intel Xeon gold server is available in Artificial Intelligence lab.

**Conference Room:** Conference rooms for Discussion sessions, presentations, and student/faculty meetings.

#### **Facilities for Cultural and Sports activities:**

- Spacious multipurpose hall having a capacity of approximately 500 students to organize cultural & academic activities.
- The institute encourages the students to do physical activities which substantially remain an integral part of our education system. Institution has two common rooms having facilities like 2 sets of Table Tennis, 10 sets of Chess and 10 sets of Carom. The Institute has 01 court for Basket Ball, 02 courts for Volley Ball, 1 Ground for Football, a practice net and ground for Cricket and 03 courts for Badminton.
- The institute has informal huts in between the green areas which are normally used by the students for various cultural activities.

**Gymnasium :** For all-round development of students there are two in-house Gymnasium (1 for boys + 1 for girls) equipped with 02 Commercial Treadmills, 02 Tricycles, All in one exercise machine, Rods for different exercise, Dumbbells of different weights, Boxing Punches etc

**Yoga Centre:** Institution has ample space of Seminar Halls, Open air theater and Green Belts which are used by Faculty and Students as and when required.

**Auditorium :** The Institute has an open-air theater with seating capacity of over 1000 for conducting various cultural activities.

#### Other Infrastructure

- Air-conditioned Hostels
- Cafeteria and Eating outlets
- Dispensary
- Stationery shops

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

#### 4.1.2 Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years

**Response:** 28.63

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

2021-22	2020-21	2019-20	2018-19	2017-18
62.34	67.4	148.21	224.99	372.33

File Description	Document
Institutional data in the prescribed format	<a href="#">View Document</a>
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

## 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 Institute is using Integrated Library Management Software (ILMS) “E-Granthalya” of version 3.0 Rev no. 32 for day-to-day activities with open access for everyone with the help of OPAC system. E-Granthalya creates its own database of holdings. With the gradual up-gradation of library and automating other subsystems, all the books are issued and returned through bar coding system. E-Granthalya has a User Friendly Interface where students and faculty can access the availability of the books in the library on their own mobile, computer or laptop. Maintaining issue/return records, etc. is being done in an automated manner.

One of the web-centric Library management software incorporating technologies that enable the library to serve its users efficiently. The software has the following features:

- Bibliographical details of the library collection and their availability.
- Online Public Access Catalogue (OPAC) can be searched from anywhere.
- Log-in creation and updation of user accounts.
- Shows transaction of issue return of the day.
- Maintains procurement details such as accession register.
- Generates lists and statistics of records, catalogs, users, use of the material, etc. based on specific filters/categories according to particular needs.

The library has well stack of books with 3225 reference books & 16885 volumes. 10 Computers for digital library. IEEE e-journals, subscribed databases through Wi-Fi and fiber optic connectivity along with NDJ and Open Access databases with remote access. The library offers an open-access system to students and staff members to access the subscribed and open-access e-resources like e-journals, e-books, manuscripts, magazines and video lectures. 542 DVDs and CDs are also available as electronic resources in the Digital library.



Over and above this library also has 49 project reports, 55 thesis, 8 print magazines, 08 newspapers in different languages and 20 print journals.

The library witnesses about 25 % of students and 15% of faculty every day.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### 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:**

Institute uses Technology in routine tasks. The Institute is Wi-Fi enabled with excellent infrastructure. IT facilities include:

**Internet Bandwidth:**

- The Institute reviews the current needs to provide IT facilities for effective teaching & learning and accordingly internet bandwidth has been upgraded from 100 Mbps to 150 Mbps.

**Wireless Network:**

- The Institute wireless network has increased from 10 to 25 access points with WPA2 encryption using AES algorithm.

**Computers:**

- Latest configuration computers are purchased every year after reviewing the requirements. 302 computers are presently available in labs.

**Center of Excellence:**

The Institute has three center of excellence:

- Artificial Intelligence by Intel India equipped with Intel One API software, Intel XEON Gold server having 24 cores, 48 threads, processor speed of 2.10 GHz and 6 TB memory. Also 29 computers having I5 processor, 8 GB ram and 256 GB SSD.
- Industrial Automation by FESTO India equipped with CIROS, FLUID SIM software, Diadatic training kit, 7 computers with I5 processor.

- IoT by EdGate equipped with microcontroller boards, IoT boards, sensors, modules and 5 computers with I5 processor.

**Data Centre:** It includes Servers, Firewalls, Computing facilities, and ICT facilities.

- Servers: The Institute has 4 high-configuration servers viz.
  - One HP Server with 16 GB RAM, 466 GB HDD managing LDAP
  - Two servers IBM Server with 14 GB RAM, 546GB HDD and IBM Server with 32GB RAM, 560GB HDD manages ERP data.
  - One HP Server with 32 GB RAM, 466 GB HDD processor is used as Library server.
- Institute has total 271 desktops in labs, 7 online UPS (2-10KVA, 1-7.5KVA, 2-6KVA, 1-2KVA and 1-1KVA) are installed as power back-up for these computer systems.

**Network & Security:**

- High-End FORTIGATE 1000D is the main firewall with throughput of 52 Gbps to provide optimal performance, versatility and efficiency to meet the growing security needs.
- Institute has high speed internet connection with 25 access points (FORTIGATE-5, D-Link-4, TP-Link-4, CISCO-1) strategically located across the campus to disseminate the internet availability within the boundaries of campus including Hostels which is accessible to all the students 24X7.

**Website:**

- The Institute updates content, design, navigation & audio/visuals of its website regularly to enhance user experience.
- Provision of online fee payment provided on the institute website for student's convenience with multiple payment gateways.

**Surveillance and Communication:**

- CCTV cameras increased from 37 to 67, which are installed at different places in the campus including hostel and canteen for strict surveillance.

**Projectors and Printers:**

- Institute possesses total number of 34 projectors.
- Every Department is facilitated with a printer.

**Technical Team:**

- Dedicated team of IT professionals handles data center, network operations, servers, and Wi-Fi and software development.

**Software and Databases:**

- The Institute has licensed software like MATLAB, Xilinx and E-tap. Apart from this, Institute believes in use of open source software.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

#### 4.3.2 Student – Computer ratio (Data for the latest completed academic year)

**Response:** 2.55

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

Response: 271

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	<a href="#">View Document</a>
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

## 4.4 Maintenance of Campus Infrastructure

#### 4.4.1 *Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)*

**Response:** 28.4

##### 4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
126.67	67.45	179.51	242.56	252.25

<b>File Description</b>	<b>Document</b>	
Institutional data in the prescribed format	<a href="#">View Document</a>	
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for maintenance of infrastructure should be clearly highlighted)	<a href="#">View Document</a>	
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>	

## 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:** 76.44

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

2021-22	2020-21	2019-20	2018-19	2017-18
550	446	598	749	878

File Description	Document
Year-wise list of beneficiary students in each scheme duly signed by the competent authority.	<a href="#">View Document</a>
Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).	<a href="#">View Document</a>
Upload policy document of the HEI for award of scholarship and freeships.	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**5.1.2 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)**
- 4. ICT/computing skills**

**Response:** A. All of the above

<b>File Description</b>	<b>Document</b>
Report with photographs on Programmes /activities conducted to enhance soft skills, Language and communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	<a href="#">View Document</a>
Report with photographs on ICT/computing skills enhancement programs	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**5.1.3 Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years**

**Response:** 54.91

**5.1.3.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
388	468	184	610	664

<b>File Description</b>	<b>Document</b>
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

**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

<b>File Description</b>	<b>Document</b>
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	<a href="#">View Document</a>
Proof related to Mechanisms for submission of online/offline students' grievances	<a href="#">View Document</a>
Proof for Implementation of guidelines of statutory/regulatory bodies	<a href="#">View Document</a>
Details of statutory/regulatory Committees (to be notified in institutional website also)	<a href="#">View Document</a>
Annual report of the committee motioning the activities and number of grievances redressed to prove timely redressal of the grievances	<a href="#">View Document</a>

## 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:** 63.66

#### 5.2.1.1 Number of outgoing students placed and / or progressed to higher education year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
120	124	140	174	218

#### 5.2.1.2 Number of outgoing students year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
133	177	270	286	353

<b>File Description</b>	<b>Document</b>
Number and List of students placed along with placement details such as name of the company, compensation, etc and links to Placement order(the above list should be available on institutional website)	<a href="#">View Document</a>
List of students progressing for Higher Education, with details of program and institution that they are/have enrolled along with links to proof of continuation in higher education.(the above list should be available on institutional website)	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### **5.2.2 Percentage of students qualifying in state/national/ international level examinations during the last five years**

**Response:** 3.84

#### **5.2.2.1 Number of students qualifying in state/ national/ international level examinations year wise during last five years (eg: IIT/JAM/NET/SLET/GATE/GMAT/GPAT/CLAT/CAT/ GRE/TOEFL/ IELTS/Civil Services/State government examinations etc.)**

2021-22	2020-21	2019-20	2018-19	2017-18
2	5	9	1	0

<b>File Description</b>	<b>Document</b>
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## **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 (award for a team event should be counted as one) during the last five years**

**Response:** 121

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



*five years*

2021-22	2020-21	2019-20	2018-19	2017-18
17	0	19	60	25

File Description	Document
list and links to e-copies of award letters and certificates	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

### 5.3.2 Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)

**Response:** 30.8

#### 5.3.2.1 Number of sports and cultural programs in which students of the Institution participated year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
35	9	36	40	34

File Description	Document
Upload supporting document	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>

## 5.4 Alumni Engagement

### 5.4.1 There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

**Response:**

The Alumni Association is registered with Societies registration Act (XXI of 1860) & registration number No 757 on 16th march 2020. The Alumni Association has one representative from each department. Annual Alumni Meets is a regular practice whereas different departments engage alumni regularly at different forums. The alumni members are active members in IQAC and IIC of the institute. They help the institute with their valuable inputs for quality improvement in following ways :

- Connecting students professionally across various industries/sectors.
- Assisting for industrial visits, Internships and placements.
- Contribute in organizing various technical events in the Annual Technical Fest “TECHNOWORLD” of the institute.
- Financial donations (Rs.6 Lakh).
- Contributing books to respective departments.

Formal Feedback from alumni is also collected on different parameters majorily on curriculum which are incorporated in the form of Certificate courses, Workshops/Seminars on Emerging technologies.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

## 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:**

The Institute is having vision and mission as follows

**VISION**

To emerge as centre of excellence in technical education by providing excellent educational opportunities for overall development of students to be a good human being to serve the society.

**MISSION**

- To impart quality education and practical knowledge to the students for imbibing requisite technical and soft skills for making them future technocrats.
- To cope with Industry requirements for bridging the gap between Industry and Academia.
- To involve students in social activities like rural development, women empowerment community service, health, and hygiene awareness & environmental protection for their contribution to create, healthy, vibrant, and sustainable society.

The Institution follows various practices to support the vision and mission of the Institute:-

- The overall administration is supervised by the Board of Governors (BOG) which is integrated in a synchronous and flexible manner with Internal Quality Assurance Cell (IQAC).The principal is assisted by Heads of Departments (HoDs) and Faculty members in the decision-making process of the Institute through different committees and ensures compliance of the activities.
- The principal along with HoDs strives to achieve the Vision of the Institution.
- Institute has an IQAC consisting of the Principal, HoD's, administrators and other stakeholders as members which are responsible for implementing quality policies and initiatives which leads to fulfil the Mission statements.
- The institute has established the Incubation Centre with the name Baba Farid School of Entrepreneurship to facilitate students.
- To provide students better exposure on latest trends and technology, Institution has established various centre of excellences in collaboration with industry for up-skilling the students and faculty: AI lab in collaboration with Intel India, Industrial automation lab in collaboration with FESTO, IOT lab in collaboration with EdGate Technologies. The institute also organize personality development classes and certificate courses on regular basis for making the students innovative and industry ready.
- As an affiliated college, curriculum is approved by affiliating university (MRSPTU), so institute is not able to implement NEP in letter and Spirit. But institute is also taking efforts to implement NEP by using ICT tools in teaching learning process and organizing various activities in-line with the

NEP.

- Institute not only participates in NIRF (National Institutional Ranking Framework) & ARIIA (Atal Ranking of Institution on Innovation Achievements) ranking, but also other rankings run by private agencies.

Decentralization is available on different heads starting from principal to faculty which is mentioned in SOPs which are available on institutional website, Library etc.

Sample decentralization powers are as follows:

#### Principal

- Functioning of the academic and administrative staff
- The procurement and purchase of the entire necessary infrastructure
- Maintenance of the infrastructure
- Finalize the academic calendar and activity planner
- Finalize the policies/procedures/SOP's

#### HoDs

- To look after the readiness of the department before start of the each semester
- To ensure the finalization of Time-Table before start of the session/semester.
- To distribute the workload among staff members.
- To supervise the proper classroom teaching
- To prepare and execute the academic calendar and activity planner

#### Faculty

- To plan and prepare all lectures for the effective curriculum delivery
- To prepare and maintain course files of each subject
- To prepare the question papers for Mid Semester Tests on time.
- To keep record of student attendance
- To conduct remedial classes

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 6.2 Strategy Development and Deployment

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

**Response:**

The Institute has well-defined perspective plan along with various policies & SOPs for decentralization of powers are approved and available for smooth functioning of the Institution. The committee prepares strategic plan after having in-depth discussions from different stakeholders and considering vision & mission. The draft strategic plan is then presented in front of BoG members for final approval.

The pictorial representation of various academic and administrative setups shown in the below mentioned organogram.

**Service Rules, Procedures, and Promotional Policies:**

The institute has well defined service rules, policies, and procedures. All are available on the institution website and are circulated to all the departments for information of faculty & staff. The service rules, policies, and procedures are related with the general administration of the college, recruitment procedure, and service conditions for the staff. All the newly recruited staff are made aware of all rules and promotional policies through orientation programs. The promotion guidelines are part of HR policy which are intune with regulatory guidelines and amended as and when required

**Recruitment Procedures:**

Recruitment is done in a transparent manner purely based on merit. The advertisement for the requirement of faculty is widely publicized through minimum two National Dailies and on social media including Institutions website. Selection committee is formed depending upon the Faculty cadre after receiving of applications and preparation of merit list .The selection committee prepares their own merit list on behalf of which prospective faculty members are issued offer letters and after joining appointment letters.

The Institutional policies and rules provide a guiding framework to all involved in the institutional processes:

- Institute's rules, procedure and policies are available on the institute's website.
- The service rules and staff welfare policy ensure equitable treatment of all the employees.
- The employees fill up their self-appraisal form and feedback is collected in a structured manner from the immediate Head of Department. The data collected is analysed and an annual increment is given based on the performance appraisal.

<b>File Description</b>	<b>Document</b>
Upload Additional information	<a href="#">View Document</a>
Institutional perspective Plan and deployment documents on the website	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

**6.2.2 Institution implements e-governance in its operations**

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

**Response:** A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	<a href="#">View Document</a>
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

### 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:**

Institute has a well-defined Performance Appraisal System and effective welfare measures for teaching and non-teaching staff.

#### **Performance Appraisal system for teaching and non-teaching staff**

All teaching and non-teaching staff are assessed through annual appraisal Performa under various categories on regular interval. On the basis of overall teaching & non-teaching performances and academic achievements, all employees are granted promotions and financial upgradation as per the policy.

#### **Effective Welfare measures for Teaching and Non-teaching staff**

The Institute always strives to motivate and empower the faculty and non teaching staff by updating welfare measures time to time. List of effective welfare measures for their benefit are:

- Interest-free loans to the staff to support them monetarily.
- Financial support in case of accidental death of the staff member
- All faculty and non teaching staff members are eligible to avail 12 days “Casual leave” annually.
- Study-Leave is given to the faculty for pursuing PhD.
- The Institute organizes an award ceremony every year for the staff members for the following awards and recognitions: - best teacher awards, research excellence award etc.
- Duty leaves for teaching staff is granted for attending national and international conferences, faculty development programs, workshops etc.
- Summer and winter vacation for Teaching is 15 working days

- Summer and winter vacation for Non-Teaching is 07 working days
- Free transportation service is provided teaching and non teaching staff on institution bus routes.
- The free Wi-Fi facility is available 24\*7 within the campus.
- Loyalty Bonus is provided to the faculty/staff for their retention.
- Two sets of uniforms to the Class-IV are provided to the staff every year.

### **Avenues for Career development/progression**

Career development schemes have been framed by the institution to improve knowledge and professional skills of faculty which is vital for carrying out modern teaching, research, and administrative activities.

- Seed money is provided to faculty for research project
- Encouragement and financial support to the faculty members to attend conferences within India and abroad, workshops etc
- Financial support to the faculty members for professional society membership
- Under IPR (Intellectual Property Rights) Policy institute provides full support to faculty for filing up till grant
- Faculty is also given one time incentive for doing quality research work under the R&D Policy
- Faculty is promoted as per the API score
- Skill development courses are organized for non-teaching staff to enhance their skills in the work environment.

<b>File Description</b>	<b>Document</b>
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

### **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:** 55.79

#### **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**

2021-22	2020-21	2019-20	2018-19	2017-18
47	57	16	33	35

<b>File Description</b>	<b>Document</b>
Policy document on providing financial support to teachers	<a href="#">View Document</a>
Institutional data in the prescribed format	<a href="#">View Document</a>
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	<a href="#">View Document</a>
Audited statement of account highlighting the financial support to teachers to attend conferences / workshop s and towards membership fee for professional bodies	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

**6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years**

**Response:** 59.78

**6.3.3.1 Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
68	42	50	78	83

**6.3.3.2 Number of non-teaching staff year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
34	34	43	45	44



<b>File Description</b>	<b>Document</b>
Institutional data in the prescribed format	<a href="#">View Document</a>
Copy of the certificates of the program attended by teachers.	<a href="#">View Document</a>
Annual reports highlighting the programmes undertaken by the teachers	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)

#### Response:

The main resource of funds is student fees (Tuition, Hostel and Transport); secured & unsecured loans, alumni donation, consultancy and sponsored projects to some extent. In addition, the institute is receiving interest income on its savings and fixed deposits, as well as donations from various sources. The institute is also hosting workshops, seminars, and conferences sponsored by funding agencies, which is providing a platform for knowledge exchange and generate additional revenue.

The BoG evaluate the budget half yearly and then strategize the requirements and utilization under different heads depending on the priorities further principal along with Chairman of BoG take necessary decisions as and when required and get it ratified.

The Institute conducts regular internal audits and external audit to verify compliance with the approved budget. These audits are conducted by a reputable CA firm to ensure that all financial transactions are in compliance with the rules and regulations of the institution.

The existing external auditors RCS Associate LLP Chartered Accountants (FRN N500374) as approved by BoG for latest financial year.

There are no observations found by external auditor in last five years

<b>File Description</b>	<b>Document</b>
Provide Link for Additional information	<a href="#">View Document</a>

## 6.5 Internal Quality Assurance System

**6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities**

### **Response:**

IQAC was established in the Institution in 2018 to maintain academic excellence. It has been contributing significantly by assuring following quality strategies and processes.

- IQAC reviews procedures and modalities to monitor teaching-learning process and its outcomes.
- Academic audits are also presented in each session to appraise the functioning of the departments and intensify the quality standards with respect to curriculum, teaching, learning, research, and student support..
- IQAC tracks and encourages the research activities to improve R & D in the institution.
- Feedback is also taken from all the stakeholders such as students, alumni, employer and faculty to improve the curriculum.

As examples, following practices are exercised meticulously for institutionalizing the quality assurance initiatives by IQAC

### **Meeting Held on 7 July 2020 (ICT tools in Teaching-Learning Process during COVID)**

Since this meeting, more ICT measures were taken into consideration during COVID period. **The**Institute started to ensure the availability of updated video lectures and study materials in alignment with the lesson plans, ensured quality content delivery; feedback was also taken from students on regular basis. Throughout the semester, the students were evaluated through assignments, and quizzes on the LMS.

### **Meeting held on 3rd March 2021 (Apply for Rankings)**

In this meeting it was suggested that college should apply for the rankings such as NIRF (National Institutional Ranking Framework), ISO etc. Taking cognizance of it college applied for the 2022 NIRF ranking. College also applied for the ARIIA (Atal Ranking of Institution on Innovation Achievements) ranking in 2021 & 2022

### **Meeting held on 27th July 2022 (Establishment of centre of Excellence)**

As per the observation of IQAC, there was a huge gap between the industry required skills and the university curriculum. So, on the basis of feedback from members, three Centre of Excellence as mentioned below was established in collaboration with Intel India, FESTO and EdGate Technology to impart the technical skills of students.

- AI Lab in collaboration with Intel India
- Industrial Automation Lab in collaboration with FESTO
- IoT Lab in collaboration with EdGate Technology

Also, as per suggestions, certificate courses in collaboration with industry were also initiated.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

#### 6.5.2 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented
2. Academic and Administrative Audit (AAA) and follow-up action taken
3. Collaborative quality initiatives with other institution(s)
4. Participation in NIRF and other recognized rankings
5. Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.

**Response:** A. Any 4 or more of the above

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	<a href="#">View Document</a>
NIRF report, AAA report and details on follow up actions	<a href="#">View Document</a>
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date.	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

## 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 institution has a bit more than 30% women in the campus including students, faculty and staff. This percentage has increased from 25% over the last five years. As per the guidelines of GOI 30% members of the administrative committees should be women. The institution is striving hard to maintain this and preparing women for leadership roles at different levels.

The institute is co-educational where there is no gender biasness in any of the activities be it curricular and co-curricular. The Institution renders equal opportunities to its students and staff without any discrimination on the basis of gender, religion, caste, provincial, urban-rural grounds.

Before every academic session, Women Development Cell (WDC) prepares Annual Activity Planner for promoting awareness about gender equity and gender sensitization among the students, teaching and non-teaching staff members.

**Facilities provided for women on the campus:**

**1. Safety and Security:**

To maintain the safety and security, following steps are taken in the institute:-

- Female Security Guards are deputed on duty at Main gate & Gate of girl's hostel to ensure round the clock security with multiple checks at entry points.
- The Institute provides secure residential facility for out stationed girls in the hostel.
- CCTV cameras have been installed at all major locations to cover the whole institute to monitor activities.
- Internal Complaint Committee names and numbers are displayed widely in the institution which ensures safety & security.
- The Institute has displayed emergency contact numbers on the notice boards in each block in college campus as well as on website. 24\*7 Ambulance Services are available in the premises to tackle medical emergencies.

**2. Counselling:**

- Female counselor is available in the campus. As per the requirement the counselor is requested to look into the matter.

**3. Common Room:**

- There is separate Air Conditioned common room is earmarked in the institute having facilities

like carom board, chess, ludo etc.

- First aid box is kept in the common room.
- Sanitary napkin dispensers are available in Girls Common Rooms as well as in girl's hostel.

#### 4. Day care for young children of female employees:

- A day care center facility has been also established inside the institute for the children of its employees.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

#### 7.1.2 The Institution has facilities and initiatives for

1. Alternate sources of energy and energy conservation measures
2. Management of the various types of degradable and nondegradable waste
3. Water conservation
4. Green campus initiatives
5. Disabled-friendly, barrier free environment

**Response:** A. 4 or All of the above

File Description	Document
Policy document on the green campus/plastic free campus.	<a href="#">View Document</a>
Geo-tagged photographs/videos of the facilities.	<a href="#">View Document</a>
Circulars and report of activities for the implementation of the initiatives document	<a href="#">View Document</a>
Bills for the purchase of equipment's for the facilities created under this metric	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

#### 7.1.3 Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

1. Green audit / Environment audit
2. Energy audit
3. Clean and green campus initiatives
4. Beyond the campus environmental promotion activities

**Response:** A. All of the above

<b>File Description</b>	<b>Document</b>
Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date	<a href="#">View Document</a>
Policy document on environment and energy usage Certificate from the auditing agency	<a href="#">View Document</a>
Green audit/environmental audit report from recognized bodies	<a href="#">View Document</a>
Certificates of the awards received from recognized agency (if any).	<a href="#">View Document</a>
Provide Links for any other relevant document to support the claim (if any)	<a href="#">View Document</a>

**7.1.4 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)**

**Response:**

In today's scenario where whole world is fighting among themselves and there is intolerance in the community the institution follows /institution is trying to develop under the philosophy of *vasudhaiva kutumbakam(One Earth One Family)*. The institute has the students from various states like Jammu Kashmir, Haryana, Rajasthan, Manipur, Mizoram, Bihar etc. To encourage social harmony and tolerance among students, the institute hosts number of events.

- **Festivals and other Celebrations:** Institution organizes state wise festivals and cultural programs on those auspicious days so that students from that state feel homely and elevated and enjoy with their friends from other states which actually creates awareness of values and responsibilities of citizens.
- **Annual Fest (VIBGYOR):** In annual fest there are different type of activities like dance, music, song vocal and instrumental where students from various region showcase their performance in their regional ways. During this stalls are organized by students reflecting their artefacts, eateries from respective state.
- **Hostel Atmosphere:** Allocation of hostel rooms is generic as and when students arrive, rooms are allocated. To make the environment of hostel congenial for the students, different committees like Mess committee where students from all strata are members.

**Sensitization of students and employees:**

- Institute being affiliated with Maharaja Ranjit Singh Punjab Technical university has a compulsory course named Constitution of India at undergraduate level across all engineering disciplines to

create awareness and sensitization of the students and employees to constitution obligation (Section 51 a) as a part of strengthening the democratic values. Lectures on Constitutional Rights and Duties” are also arranged to make students aware of human values and human rights.

- Institute is offering course named “Human Values and Professional Ethics”. Additional various activities related to cultural, social welfare and sports are being organized. The main emphasis is on inculcating and promoting human values and professional ethics. These include mutual-concern, mutual-help without any prejudice, mutual-understanding and mutual-respect, respect for values of others; mutual-fraternity, mutual-friendship irrespective of their religion, caste, regions, language, and culture; collective-efforts and team-work to do all the tasks.
- Institute organized various activities such as seminar on “Mental Health and Well Being.”
- Commemorated days like Voters Day, Independence Day, and Republic Day etc. are celebrated

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Provide Link for Additional information	<a href="#">View Document</a>

## 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:

#### 1.Title of the Practice:

“Innovation ecosystem in institute”

#### 2.Objectives of the Practice

- The objective is to create an environment that fosters innovation, creativity, and entrepreneurship.
  - Promoting a culture of experimentation, risk-taking, and learning from failure.
  - Creating opportunities for students and researchers to apply their knowledge and skills to real-world problems.
  - Supporting the commercialization of research and development efforts.

#### 3.The context

Innovation is the buzz word not only for educational institutions but also for industry. The First Industrial Revolution began in the 18th century since then world is changing very fast. Technological developments and innovations which previously took 100 years now in fourth industrial revolution it had shortened to 25-30 years.

To make the students ready for the fast changing world institute provides a platform for addressing these challenges through interdisciplinary research, entrepreneurship, and community engagement.

#### **4.Practice**

- 2017 - The Institute established Baba Farid School of Entrepreneurship (BFSoE), which offers guidance and mentoring to budding entrepreneurs through various training programs and industrial collaborations.
- 2018 – Institute established an IPR Cell and subsequently launched IPR Policy
- 2020 - The Institutions Innovation Council (IIC) under the Ministry of Education was established, showcasing student entrepreneurial activities at a national level.
- 2021 – Registered Baba Farid School of Entrepreneurship (BFSoE) as a separate entity as a Registered Society

Institute offers Certificate Course on Startups and IPR. Institute also offered a open elective course on Filing a Patent to its students

The Institute regularly organizes Entrepreneurship Awareness Camps sponsored by DST, In addition to it various competitions like Business Plan Competitions, Ideation Contests, Hackathons etc. are annual events

For the Startups BFSoE provides various support services which includes expert talks, one-on-one mentoring, and online conferencing. Institute also organizes incubation training programs and workshops to enhance students' entrepreneurial skills.

Student members of the IIC have actively participated in around 30 entrepreneurial programs.

#### **5.Evidence of Success**

- BFSoE is currently incubating five startups and providing all the support services
- Two Startups were selected to exhibit their products at the G20 Summit held at Amritsar
- In 2023 One Startup has also raised the money under SHE grant
- Till date 42 patents published and out of these six are granted.
- Institute has collaborated with many government and non government agencies, to enhance its services and support to startups.
- Institute has been funded by DST-NIMAT, Startup Punjab for organizing the events

#### **6. Problems Encountered and Resources Required**

Institute is located in the remote area so the major problem is to change the mind set of the students and faculty toward entrepreneurship and innovation.

The Institute has self financed incubation centre so funding/ grant to run the same is also the concern

Due to location challenge Mentors don't engage with the institute.



## **Best Practice: II**

### **1. Title of the Best Practice**

“Skills Enhancement: A Roadmap to Success”

### **Objectives**

- To enhance the employability of students by making them industry ready.
- To impart necessary skills for employability.
- Skill enhancement is majorly on soft skills and Technical skills. Focusing on both the skills depending on requirement of student viz-a-viz Industry

### **3. The context**

The technologies and competencies required for Industry 4.0 and Research advances are dynamic and need to be updated by both students and faculty.

Formal education may not meet all the required industry competencies. The gap analysis between Industry and Graduate competencies must be identified and addressed sometimes.

Departments may not focus on contemporary and multidisciplinary training programs. A section is needed to collect requirements and plan training for focused outcomes.

### **4. Practice**

- 2015- Establishment of School of skill Development (SSD)
- 2017-MoU with Central University of Punjab, Bathinda for research related collaborative activities.
- 2021-Established Centre of Excellence IAR Lab in collaboration with FESTO.
- 2021-MoU with AIIMS, Bathinda for interdisciplinary Projects .
- 2022- Established Centre of Excellence AI Lab in collaboration with INTEL INDIA.
- 2022-MoU with Rubicon India for Personality Development Programmes for the students.
- 2022-Collaboration with Ambuja Cement for organising Joint Certificate courses for CE students.
- 2022-Collaboration with PP Industry & Nirol Wires for organising Joint Certificate courses for EE students.
- 2023- Established Centre of Excellence IoT Lab in collaboration with EdGATE Technologies.
- 2023- MoU with Infosys for upskilling of Faculty and Students.
- Funding upto Rs 1 Lac for Live Projects prepared by students under Student Project Policy.

### **5. Evidence of Success**

- Outcomes are measured through placements, internships, highest packages, and Research etc. The number of students also increased in skill enhancement activities and the scenario of employability also improved in terms of % age of numbers of placements.

- Approx 25% students offered internships through SSD .
- 89 certificate courses were conducted to train 3073 students in the last 5 years and improved the threshold competencies.
- More than 50% faculty has been trained through various initiatives like INTEL, FESTO, RUBICON India etc.
- During last 3 Years , almost 40 Live projects have been completed by the students resulting to more than 30 patents published.

## 6. Problems encountered and Resources required

- Providing training in advanced technologies to faculty.
- Motivating faculty and students to work on Multidisciplinary areas.
- Keeping pace with continuous updation in Industry.
- Allocation and Establishment of Infrastructure for CoEs.
- Motivating students and faculty to work in odd hours.

File Description	Document
Best practices as hosted on the Institutional website	<a href="#">View Document</a>

## 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:

With the mission of producing morally upright people who can contribute to society, the institute bears Baba Farid Ji's name and works for society in accordance with his philosophy.

In reference to the Ideology of Baba Farid Ji "**Farida Bure Da Bhala Kar**", i.e. Helping others in need who so ever may be and with an aim to raise public awareness against social evils and behaviour that are pervasive in society.

Few of the activities done by institute for the society are:

*Baba Farid Ji was a 12th-century Punjabi Sufi poet and saint who emphasized the importance of education and knowledge in the lives of people.*

*The practice of conducting workshops for the upliftment of students under the "vindyaanjli" scheme is highly relevant to Baba Farid Ji's teachings. In one of his quotes, he said, "Education is the path to*

*success, and every person should strive to acquire knowledge." Furthermore, Baba Farid Ji believed in helping those who are less fortunate, and this is exactly what the institute is doing by conducting workshops for students with no/less infrastructure.*

- Outcome of which till date in the session 2021-22, 17 such workshops were conducted in different schools under "vindyaanjli" scheme more than 1000 students have been benefitted.

*Baba Farid ji once said, "Be kind to those who are less fortunate than you, and you will find blessings in your life."*

- **Various scholarship and freeships schemes** have been announced by the institution over the years where 1118 number of students have been benefitted and Rs 2.23 Cr amount of scholarship has been sanctioned in last 5 years

*Baba Farid Ji believed in the importance of social responsibility and the need to serve society. He also taught the importance of helping others, especially those who are in need.*

- A special **blood donor squad** has been formed by the college, which helps the people in need of blood in times of emergency. **All students and staff are members of this squad** and they voluntarily donate blood whenever required. On an average every year 50-60 units donation is normal but sometimes camps through various NGO and Govt. organizations like Red Cross manifolds the donations.

*Baba Farid Ji emphasized the importance of personal well-being and the need to maintain a healthy and disciplined lifestyle (personal hygiene, environmental hygiene, and a balanced diet).*

- The anti-drug campaign organized in the college and surrounding areas is aimed at creating awareness among individuals about the harmful effects of drug abuse on their personal well-being.
- The Traffic Awareness Campaign being organized in the campus and surrounding areas is aimed at creating awareness among individuals about traffic rules to ensure their safety on the roads. A

complete week has been dedicated to traffic awareness in the first week of June every year.

- The free eye check-up organized during the traffic awareness week is a means of ensuring the well-being of everyone.

*Baba Farid Ji believed in the importance of taking care of one's health.*

- Institute sensitize people about the need for preventing diseases by practicing personal and environmental hygienic measures and eating a balanced diet in their day-to-day life.
- A **Cancer Awareness** was organized
- Several **Free Eye Check-up Camps** in nearby villages
- **Seminars on Sugar Obesity** have been organized

*Baba Farid Ji was a strong advocate of social responsibility and the need to serve society.*

*Baba Farid Ji emphasized the importance of leading a life of discipline, compassion, and social responsibility. Baba Farid Ji was a strong advocate of living in harmony with nature.*

- The various initiatives taken by institute, such as tree plantation, water harvesting, and promoting the use of eco-friendly products, seminars and Live Green drives are in line with Baba Farid Ji's teachings of respecting and preserving nature.
- The institute encourages students to generate live projects that help in maintaining the campus eco-friendly, which is a means of promoting education and knowledge about environmental sustainability.

*Baba Farid Ji's teachings emphasized the importance of selfless service and compassion towards others. He also emphasizes on the importance of preserving nature and taking care of the environment.*

- Events like protests against crackers, tree plantations, and water conservation are organized by the students, NCC and NSS groups.

*Baba Farid Ji believed that the true measure of a person's worth is in their service to others, and the students and groups at the Institute are living up to this ideal through their community service projects.*

- Adoption of five villages under the "Unnat Bharat Abhiyan" scheme and organizing events such as medical camps and awareness programs on water conservation and drug abuse reflects the students' commitment to community development and social welfare. Under "**Unnat Bharat Abhiyan**" scheme the campus receive a grant of Rs 50,000/- from IIT Delhi.

File Description	Document
Appropriate web in the Institutional website	<a href="#">View Document</a>

## 5. CONCLUSION

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### Additional Information :

- Hi-tech campus with facilities of teaching through digital smart boards and projectors.
- Certificate of Honor from affiliating university MRSPTU Bathinda for Best Placement and Best Results in 2023
- Institute awarded with 3 star rating by IIC, MoE in 2022
- Ranked 49th position in India and positioned in A5 Band under the category institution of Academic Excellence in OBE ranking 2021
- Ranked 1st in Punjab for most sustainable building under Green Institutional Ranking 2022 by R World Institutional Ranking
- 100% placement Assistance
- Wi-Fi campus and all time access to the internet
- Established Incubation Centre
- National International collaborations with Industry and Universities of National repute
- Organize national and International Seminars/Conferences
- Specially designed lesson plans, tutorials and assignment for each subject.
- Well equipped independent labs in all the departments.
- Special emphasis on Spoken English and Personality Development.
- Emphasis on classroom culture with stress on maintaining discipline.
- Committed to organize sports activities and other cultural festivals. In addition to conducting inter-college seminars and technical symposiums.
- Qualified and experienced faculty members acting as a mentor of the students.
- Certificate courses offered beyond the curriculum
- AC Hostel offers a conducive environment to the students.
- Centrally air-conditioned, well stacked computerized library with more than ten thousand books, books issued and returned done through smart cards.
- The students can access freely various e-journals of Institute Of Electrical And Electronics Engineers (IEEE)
- Tie up with different professional organizations to impart training on communication skill, presentations and language skills to polish the personality of students and improve their placement potential.
- Provide ample opportunity to be job provider rather than job seeker

### Concluding Remarks :

At Baba Farid College of Engineering and Technology, the aim is to provide forums and platforms that bring together inspired people to promote research and development, employability, and skill development in order to make our nation more skilled. In today's era of digital disruption, the institution is committed to equipping students with 21st-century skills.

The Institute believes in imparting core values of technical education and skills by bridging the gap between knowledge-based education and competency-based education. The aim is not just to produce graduates and post-graduates, but also skilled professionals.

With the support of all stakeholders, institute has taken various initiatives to address the diverse needs of

learners and enable them to tackle bigger challenges and utilize their learning towards the betterment of society. The laurels won by students, faculty, and alumni indicate that the institution is quality-conscious and progressing in the right direction.

Writing the Self Study Report (SSR) for Baba Farid College of Engineering and Technology has allowed the institution to accumulate and comprehend the various aspects of quality education. The NAAC Accreditation is the initial stride towards the authorization progression that can help the college provide its finest services in a more efficient approach. BFCET believes that applying for NAAC is a step towards self-assessment leading to further progress of the college towards excellence. As the college aims to become a premier autonomous body, NAAC Accreditation assures its quality parameters as a benchmark.