

### YEARLY STATUS REPORT - 2021-2022

Part A			
Data of the Institution			
1.Name of the Institution	XAVIER INSTITUTE OF ENGINEERING		
Name of the Head of the institution	Y. D. Venkatesh		
• Designation	Principal		
• Does the institution function from its own campus?	Yes		
• Phone no./Alternate phone no.	02224460359		
• Mobile No:	9820198029		
Registered e-mail	office@xavier.ac.in		
Alternate e-mail	ydvenkatesh@yahoo.com		
• Address	Xavier Institute of Engineering, Opposite S L Raheja Hospital, Mahim Causeway, Mahim West		
• City/Town	Mumbai		
• State/UT	Maharashtra		
• Pin Code	400016		
2.Institutional status			
Affiliated / Constitution Colleges	Affiliated		
Type of Institution	Co-education		
• Location	Urban		

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• Financial Status				Self-f	inand	cing		
Name of the Affiliating University				Mumbai University				
• Name of	the IQAC Coordi	nator		S.Beatrice				
• Phone No	).			022244	54559	9		
Alternate	phone No.			022244	51961	L		
• Mobile				996756	6467			
• IQAC e-r	nail address			xie-iq	ac@xa	avier.a	c.in	
Alternate	e-mail address			beatri	ce.s	xavier	.ac.i	in
3.Website addre (Previous Acade	`	the AQ	QAR	https://www.xavier.ac.in/NAAC%20A QAR.php				
4.Whether Acad during the year's		prepar	ed	Yes				
• if yes, whether it is uploaded in the Institutional website Web link:			https://www.xavier.ac.in/Academic %20Calendar.php					
5.Accreditation	Details							
Cycle	Grade	CGPA	A	Year of Accredita	ation	Validity	from	Validity to
Cycle 1	B+	2	.63	2019	9	01/04/	2019	31/03/2024
6.Date of Establ	ishment of IQA	C		18/12/2018				
7.Provide the list of funds by Central / State Government UGC/CSIR/DBT/ICMR/TEQIP/World Bank/CPE of UGC					C etc.,			
Institutional/Depresent /Faculty	pa Scheme		Funding	Agency		of award duration	A	mount
Nil	Nil	Nil Ni			1 Nil			Nil
8.Whether composition of IQAC as per latest NAAC guidelines			Yes					
Upload latest notification of formation of IQAC			View File	2				

Yes		
No File Uploaded		
No		
ng the current year (ma	ximum five bullets)	
rnal auditing in a	all the	
policy.		
on Technical pape	er writing and	
nge of all departs	ments are	
e beginning of the Acade by the end of the Acade		
	ng the current year (magnal auditing in a policy.  on Technical paper age of all departs beginning of the Acade	

Plan of Action	Achievements/Outcomes
Mandatory Academic- Audit by IQAC team	IQAC prepared a format for conducting academic Audit of all the departments which was approved by the Academic Council. The IQAC team conducted the audit following the format to improve the quality process in academics. The team also ensured that all the departments have followed their recommendations.
Submission of SAR by IT department	IQAC was instrumental for submission of NBA-SAR Application of UG program - IT
More modules are added in ERP	Developed systems to incorporate Quiz, Mentoring and Printing of mark sheets using ERP.
Re-structuring of Feedback system following the OBE process	IQAC suggested that Feedback system should be re-structured following the OBE process and the corrective measures should be taken by the departments for implementation. Following the advice of IQAC, the Feedback structure was totally re-vamped and the total feedback analysis (Students, Faculty, Alumni, and Employers) has been displayed in the college website. Even the Student Satisfaction Survey (SSS) Analysis regarding Teaching - Learning and Evaluation has been made to upgrade the quality in higher education.
13.Whether the AQAR was placed before statutory body?	Yes
Name of the statutory body	1

Name	Date of meeting(s)
College Development Committee	13/04/2022

#### 14. Whether institutional data submitted to AISHE

Year	Date of Submission
2021-22	31/12/2022

#### 15. Multidisciplinary / interdisciplinary

The Institute assimilates and sinks with the vision of National Education Policy to provide high quality education to nurture the joy of excellence. The curriculum involves subjects of humanities and basic sciences in the first year to build a strong foundation of STEM. 'Environmental studies' is also offered as an elective in the final year.

#### **16.Academic bank of credits (ABC):**

NA as the institute is affiliated to Mumbai University

#### 17.Skill development:

The institute offers various value added courses and workshop with hands-on experience to promote the technical skill development among all students. Value-based education is encouraged by conducting lectures on 'Universal Human Values' as promoted by AICTE. Inclusion of the course of 'Professional and business Communication skills and Ethics' in Semester II and V that enables the students to hone their individual communication skills as well as other interpersonal skills required for team-interactions.

## 18.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)

The institute although follows English as the primary medium of instruction, it also allows scope for regional languages like Hindi and Marathi to be incorporated for a relatable intellectual exchange. It also makes an attempt to preserve the Indian culture and promote it by organizing various cultural events like the 'Garba celebration' and other festivals. The institute's cultural event, Spandan, offers a platform to display Indian culture through the mediums of dance and singing.

#### 19. Focus on Outcome based education (OBE): Focus on Outcome based education (OBE):

The institute places great emphasis on outcome-based education (OBE)

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which is incorporated in every single course and subject that is designed with a view in preparing students to meet the global standards in technical education. OBE is executed by clearly stating the Program Outcomes through Graduate attributes, Program Educational and Specific Outcomes and Course outcomes. All the courses are designed with outcomes that focus on cognitive abilities namely Remembering, Understanding, Applying, Analysing, Evaluating and Creating. Apart from the domain-specific skills, the course outcomes also promote social responsiveness, problem analysis, and ethical conduct so that the students are at par with the global standards of technical excellence and also utilize their knowledge for societal development. The Course outcomes (COs) are also mapped to the POs and PSOs.

#### 20.Distance education/online education:

NA

#### **Extended Profile**

#### 1.Programme

1.1

Number of courses offered by the institution across all programs during the year

File Description	Documents
Data Template	View File

#### 2.Student

2.1

Number of students during the year

File Description	Documents
Data Template	<u>View File</u>

2.2

Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year

File Description	Documents
Data Template	<u>View File</u>

2.3	211	
Number of outgoing/ final year students during the	year	
File Description	Documents	
Data Template	<u>View File</u>	
3.Academic		
3.1	43	
Number of full time teachers during the year		
File Description	Documents	
Data Template	<u>View File</u>	
3.2	46	
Number of Sanctioned posts during the year		
File Description	Documents	
Data Template	<u>View File</u>	
4.Institution		
4.1	11	
Total number of Classrooms and Seminar halls		
4.2	127.296	
Total expenditure excluding salary during the year (INR in lakhs)		
4.3	586	
Total number of computers on campus for academic purposes		
Part B		
CURRICULAR ASPECTS		
1.1 - Curricular Planning and Implementation		
1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process		
Our Institute XIE is affiliated to University of Mumbai and the		

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curriculum and syllabi are prescribed by the university that is to be strictly adhered to. The institution has a well-developed system for effective implementation of the scheme of the curriculum. Teaching Learning Process is based on proper planning and effective delivery of Lecture / Practical / Tutorial as per the time table, following the academic calendar. Academic calendar and time-table are displayed 15 days before the commencement of semester on the Institute website and notice boards. The FE orientation programme was organized online to promote congenial and healthy atmosphere among FE students. Teachers could use zoom links and google meet to conduct the classes. Open-source software is used to conduct online experiments as per the guidance by IITs. Internal assessment test -I and test II are conducted after 40% and 70% coverage of syllabus, followed by End semester examination conducted by the University. Well defined program outcomes and course outcomes provide direction to teaching and other activities. Students are encouraged in carrying out research work and present papers in seminars, conferences and journals and also to attend Guest lectures, Industrial visits and various training programmes.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Link for Additional information	Nil

## 1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

Our Institute XIE is affiliated to University of Mumbai and the curriculum and syllabi are prescribed by the university that is to be strictly adhered to. The institution has a well-developed academic calendar for each semester which is shared with all the respective students and teachers at least 15 days before the commencement of each semester. It clearly provides the important dates of commencement of the semester, internal assessment tests, university examination, departmental meetings, Parents - Teachers' meet, mentoring session to be held with mentee and the guest lecture to be conducted. Learning process of students is monitored by the faculty members on the basis of continuous evaluation. Teaching -Learning process in the institute is followed with a student-centric method of teaching such as providing them with question banks for self - practice. The question bank is shared in blended mode using Google classroom and ERP portal as well as through notice board. ICT is used extensively to ensure effective conduction of examination

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#### and display of results.

File Description	Documents
Upload relevant supporting documents	<u>View File</u>
Link for Additional information	Nil

#### 1.1.3 - Teachers of the Institution participate in | B. Any 3 of the above following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year. Academic council/BoS of Affiliating University Setting of question papers for UG/PG programs Design and Development of Curriculum for Add on/ certificate/ Diploma **Courses Assessment / evaluation process of the** affiliating University

File Description	Documents
Details of participation of teachers in various bodies/activities provided as a response to the metric	<u>View File</u>
Any additional information	No File Uploaded

#### 1.2 - Academic Flexibility

#### 1.2.1 - Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

#### 1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented

3

File Description	Documents
Any additional information	<u>View File</u>
Minutes of relevant Academic Council/ BOS meetings	No File Uploaded
Institutional data in prescribed format (Data Template)	<u>View File</u>

#### 1.2.2 - Number of Add on /Certificate programs offered during the year

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## 1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement for year: (As per Data Template)

10

File Description	Documents
Any additional information	No File Uploaded
Brochure or any other document relating to Add on /Certificate programs	No File Uploaded
List of Add on /Certificate programs (Data Template )	<u>View File</u>

## 1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year

651

## 1.2.3.1 - Number of students enrolled in subject related Certificate or Add-on programs during the year

651

File Description	Documents
Any additional information	No File Uploaded
Details of the students enrolled in Subjects related to certificate/Add-on programs	No File Uploaded

#### 1.3 - Curriculum Enrichment

1.3.1 - Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### Gender:

Our Institute XIE truly respects all the students and encourages them to follow a code of conduct and maintain discipline in the campus. Students participate in various curricular and extra - curricular activities irrespective of their gender. The Institute has a Women Development Cell to address gender discrimination and to nurture women empowerment through various workshops and seminars.

Environment and Sustainability:

XIE is conducting two courses for B. E. students, Disaster

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Management & Mitigation Measures and Environmental Management which help the students to spread awareness about the Environment protection and sustainable development in the society.

Various awareness programs, blood donation camps, etc. are conducted under the NSS centre of XIE. Solar Energy Harnessing Panels are implemented at the institute, which promotes the use of a clean Energy.

Human Values and Professional Ethics:

Curriculum courses like Business Communication and Ethics, Professional Communication and Ethics, Cyber Security and Laws and Project Management play an important role in imparting values.

File Description	Documents
Any additional information	No File Uploaded
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum	<u>View File</u>

## 1.3.2 - Number of courses that include experiential learning through project work/field work/internship during the year

26

File Description	Documents
Any additional information	No File Uploaded
Programme / Curriculum/ Syllabus of the courses	<u>View File</u>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	No File Uploaded
MoU's with relevant organizations for these courses, if any	No File Uploaded
Number of courses that include experiential learning through project work/field work/internship (Data Template)	<u>View File</u>

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#### 1.3.3 - Number of students undertaking project work/field work/ internships

#### 429

File Description	Documents
Any additional information	No File Uploaded
List of programmes and number of students undertaking project work/field work//internships (Data Template)	<u>View File</u>

#### 1.4 - Feedback System

# 1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni

A. All of the above

File Description	Documents
URL for stakeholder feedback report	No File Uploaded
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	<u>View File</u>
Any additional information(Upload)	No File Uploaded

## 1.4.2 - Feedback process of the Institution may be classified as follows

A. Feedback collected, analyzed and action taken and feedback available on website

File Description	Documents
Upload any additional information	No File Uploaded
URL for feedback report	https://www.xavier.ac.in/AQAR%202021-22%20Cr iteria%20I.php

#### TEACHING-LEARNING AND EVALUATION

#### 2.1 - Student Enrollment and Profile

#### 2.1.1 - Enrolment Number Number of students admitted during the year

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#### 2.1.1.1 - Number of sanctioned seats during the year

189

File Description	Documents
Any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

## 2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)

#### 2.1.2.1 - Number of actual students admitted from the reserved categories during the year

22

File Description	Documents
Any additional information	<u>View File</u>
Number of seats filled against seats reserved (Data Template)	<u>View File</u>

#### 2.2 - Catering to Student Diversity

2.2.1 - The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners

2.2.1 - The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners.

The Institute has fixed a process for finding advanced and slow learners as follows;

Each subject teacher will identify the advanced and slow learners in their respective subject/s.

The Scale for Identification of advanced learner assessment percentage is greater than or Equal to 70 % and for Slow Learner assessment percentage is less than or equal to 40 % (Faculty can change these percentages levels with proper justification)

Activities for slow learners are carried out as given below:

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- 1)Problem-solving or revision sessions are conducted
- 2) Students are prepared by giving them special assignments.

Personal attention is provided by the respective subject teacher in teaching.

Activities for advanced learners are carried out as given below:

- 1) Advance learners are asked to conduct a seminar or advance topics for Juniors or students of the same class
- 2) They perform projects on their area of interest
- 3) Students are encouraged for Paper Writing
- 4) They are given difficult Programming Challenges.
- 5) Special Assignments are provided etc.

File Description	Documents
Link for additional Information	https://www.xavier.ac.in/AQAR%202021-22%20Cr iteria%20II.php
Upload any additional information	<u>View File</u>

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

Number of Students	Number of Teachers
801	43

File Description	Documents
Any additional information	<u>View File</u>

#### 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

Outcome-Based Education, is an attempt to measure educational effectiveness based on results. In professional education, the major

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focus is on knowledge, skill, and attitude. Knowledge is mainly dealt through classroom teaching. Skill and attitude building are targeted through participative and experiential learning.

#### Experiential Learning:

- · A lot of scope for experiential learning is provided through the revised curriculum which includes mini projects and major projects.
- · Students are encouraged to undertake internships that give an experience of working in an organization.

#### Participative Learning:

 Students learn many aspects by participating in events or activities which are listed below,

Technical competitions.

Technical paper presentation

Attending seminars/workshops

Students organize/attend co-curricular and extra-curricular activities.

Problem Solving Methodologies:

Curriculum content of a few courses of design domain deals with attempting solutions to specific problems. The process includes:

- 1. Identifying the need
- 2. Reframing the need into a problem statement
- 3. Identifying alternative solutions to the problem
- 4. Selecting the final solution
- 5. Building and testing the model
- 6. Documentation

The above-mentioned process is also followed in mini projects and major projects.

File Description	Documents
Upload any additional information	<u>View File</u>
Link for additional information	https://www.xavier.ac.in/AQAR%202021-22%20Cr iteria%20II.php

## 2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process. Write description in maximum of 200 words

During the pandemic situation entire teaching learning was on online mode. To make online classes more effective, the institute adopted a common platform like moodle, ERP, Google meet & ZOOM meetings. All teachers are using various ICT tools applicable as per their course to make it more interesting and interactive. The various ICT tools adopted by teachers are given below:

- 1. Power Point Presentations including animation
- 2. Lecture Videos and summary videos
- 3. To assess students' understanding regular quizzes are conducted using platforms such as moodle & Google forms.
- 4. White Boards/ Digital Writing Pads
- 5. NPTEL/ Online courses
- 6.Access to National digital Library and Science Direct.

File Description	Documents
Upload any additional information	<u>View File</u>
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	https://www.xavier.ac.in/AQAR%202021-22%20Cr iteria%20II.php

## 2.3.3 - Ratio of mentor to students for academic and other related issues (Data for the latest completed academic year )

#### 2.3.3.1 - Number of mentors

43

File Description	Documents
Upload, number of students enrolled and full time teachers on roll.	<u>View File</u>
Circulars pertaining to assigning mentors to mentees	<u>View File</u>
mentor/mentee ratio	<u>View File</u>

#### 2.4 - Teacher Profile and Quality

#### 2.4.1 - Number of full time teachers against sanctioned posts during the year

43

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	<u>View File</u>
Any additional information	<u>View File</u>
List of the faculty members authenticated by the Head of HEI	<u>View File</u>

## 2.4.2 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)

## 2.4.2.1 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

5

File Description	Documents
Any additional information	<u>View File</u>
List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year(Data Template)	<u>View File</u>

## 2.4.3 - Number of years of teaching experience of full time teachers in the same institution (Data for the latest completed academic year)

#### 2.4.3.1 - Total experience of full-time teachers

452

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File Description	Documents
Any additional information	<u>View File</u>
List of Teachers including their PAN, designation, dept. and experience details(Data Template)	<u>View File</u>

#### 2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

The college has a transparent and robust internal evaluation process in terms of frequency and mode.

For transparent and robust internal assessment, the following mechanisms are considered

- At the beginning of the semester, faculty members inform the students about the various components of the internal assessment process during the semester
- The Internal Assessment Test (IAT) schedules are prepared as per the university guidelines and communicated to the students well in advance.
- The Internal assessment test-I is conducted after 40% coverage of the syllabus.
- The second Internal assessment test- II is conducted after 80 % coverage of the syllabus.
- To ensure proper conduct of IAT tests, invigilators are assigned to each hall.
- The result of this examination is displayed and interacted with students within three to four days from the conduction of the IAT examinations.
- The corrected answer papers of the students are distributed to them for verification by the students and any grievance is redressed immediately.
- The final marks obtained by the students in internal assessment tests are communicated to all the students or

displayed on the departmental notice board.

 The examination committee conducts the end-semester theory, oral and practical examinations as per guidelines received from Mumbai university

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	
	https://www.xavier.ac.in/AQAR%202021-22%20Cr
	<u>iteria%20II.php</u>

2.5.2 - Mechanism to deal with internal examination related grievances is transparent, time-bound and efficient

The Institute forms two different committees namely

- The Examination committee
- The grievances redressal Committee
- 1. The Examination committee: Following are the members of the committee the Institutional Chief examination Officer, the Chief Conductor, the Senior supervisor, and the Understudy supervisor to ensure for smooth conduction of end-semester examinations held at the Institute.
- 2. The grievances redressal Committee: The head of the institute appoints four to five senior faculty members to this committee; the members of this committee hold a meeting at the end of the examination to resolve all the grievances happened related to the current semester examination.

File Description	Documents
Any additional information	<u>View File</u>
Link for additional information	
	https://www.xavier.ac.in/AQAR%202021-22%20Cr
	<u>iteria%20II.php</u>

#### 2.6 - Student Performance and Learning Outcomes

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## 2.6.1 - Teachers and students are aware of the stated Programme and course outcomes of the Programmes offered by the institution.

#### Programme outcomes:

The statements of the POs are adapted from the NBA SAR-Annexure I.

Programme specific outcomes:

Program Specific Outcome (PSO) statements for all programs, were drafted based on guidelines from SWOT analysis by DWC (Department Working Committee) and approved by DAB (Department Advisory Board). The DAB consists of representatives from all the stakeholders such as students, parents, alumni, industries, and academia. PSOs are disseminated to the stakeholders through the following channels:

- 1. Institute Website
- 2. Department Notice Board
- 3. Laboratory Notice board
- 4. HOD Cabin

#### Course outcomes:

Course outcomes (COs) are stated for all courses in clear statements of what a student should be able to demonstrate upon completion of a course concerning knowledge and skills.

Six Course Outcomes (COs) for the theory and a minimum four LOs for the laboratory-related courses are framed in consultation with module coordinators. Guidelines to frame Course outcomes are given in the OBE booklet. Course outcomes are disseminated to the students in the following way

- 1. During the first lecture of every semester
- 2. Laboratory Notice Board

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	https://www.xavier.ac.in/AQAR%202021-22%20Cr iteria%20II.php
Upload COs for all courses (exemplars from Glossary)	<u>View File</u>

#### 2.6.2 - Attainment of Programme outcomes and course outcomes are evaluated by the institution.

The course outcome attainment is broadly done in two parts namely Internal and External Assessment. The weightage for Internal Assessment is 60% and External Assessment is 40%.

- Internal Assessment (60%): Internal Assessment is measured from direct evaluation and indirect evaluation which has a weightage of 80% and 20% respectively.
  - Direct Evaluation (80%) displays the student's knowledge and skills from their performance. The direct evaluations are done with a minimum of two tools which are selected from Continuous Internal Evaluations (CIE) such as internal assessment tests, assignments, quizzes, laboratory experiments, and mini-projects.
  - Indirect Evaluations (20%) include a course exit survey which is taken upon completion of the course.
- External Assessment (40%): The external evaluations include End Semester Examination (ESE) conducted by the University.

Program Outcome (PO) and Program Specific Outcome (PSO) Attainment

Attainment of Program Outcomes and Program Specific Outcomes are mainly done by using Direct and Indirect Assessment methods. The weightage for Direct and Indirect Assessment are 80% and 20% respectively

• Direct Assessment is derived from CO attainment from all courses based on CO-PO mapping.CO-PO mapping is done by Performance Indicator (PI).

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• Indirect Assessment is carried out by using the Program Exit survey.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	https://www.xavier.ac.in/AQAR%202021-22%20Cr iteria%20II.php

#### 2.6.3 - Pass percentage of Students during the year

## 2.6.3.1 - Total number of final year students who passed the university examination during the year

211

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	<u>View File</u>
Upload any additional information	<u>View File</u>
Paste link for the annual report	https://www.xavier.ac.in/AQAR%202021-22%20Cr iteria%20II.php

#### 2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a weblink)

https://www.xavier.ac.in/AOAR%202021-22%20Criteria%20II.php

#### 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 year (INR in Lakhs)
- 3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

3

File Description	Documents
Any additional information	No File Uploaded
e-copies of the grant award letters for sponsored research projects /endowments	<u>View File</u>
List of endowments / projects with details of grants(Data Template)	<u>View File</u>

## 3.1.2 - Number of departments having Research projects funded by government and non government agencies during the year

## 3.1.2.1 - Number of departments having Research projects funded by government and non-government agencies during the year

1

File Description	Documents
List of research projects and funding details (Data Template)	<u>View File</u>
Any additional information	No File Uploaded
Supporting document from Funding Agency	<u>View File</u>
Paste link to funding agency website	Nil

#### 3.1.3 - Number of Seminars/conferences/workshops conducted by the institution during the year

## 3.1.3.1 - Total number of Seminars/conferences/workshops conducted by the institution during the year

9

File Description	Documents
Report of the event	No File Uploaded
Any additional information	No File Uploaded
List of workshops/seminars during last 5 years (Data Template)	<u>View File</u>

#### 3.2 - Research Publications and Awards

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## 3.2.1 - Number of papers published per teacher in the Journals notified on UGC website during the year

#### 3.2.1.1 - Number of research papers in the Journals notified on UGC website during the year

43

File Description	Documents
Any additional information	No File Uploaded
List of research papers by title, author, department, name and year of publication (Data Template)	<u>View File</u>

## 3.2.2 - Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during the year

## 3.2.2.1 - Total number of books and chapters in edited volumes/books published and papers in national/international conference proceedings during the year

7

File Description	Documents
Any additional information	No File Uploaded
List books and chapters edited volumes/ books published (Data Template)	<u>View File</u>

#### 3.3 - Extension Activities

3.3.1 - Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year

The Xavier Institute of Engineering (XIE) carriesout extension activities in the neighborhood community to sensitize students to social issues through its NSS Unit. The XIE NSS unit started its activities at the beginning of the academic year 2021-22 with the active participation of NSS volunteers and the Programme Officer, with the Motto of NSS i.e., "Not Me But You", that reflects on the essence of democratic living and upholds the need for selfless service by volunteers. The NSS Unit of Xavier Institute of Engineering (XIE) organized the following major activities in the academic year 2021-22: Independence Day celebration, Republic Day celebration, volunteering for blood donations camp at various railway stations, poster-making competition, breast cancer awareness session, tree plantation, feeding stray animals, gender equality,

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etc. The NSS cell of XIE also actively participates in the webinars and other activities organized by the NSS cell of Mumbai University. The selfless service of our student volunteers at our institute has shown their capability in serving our society by working in the field practically. Working in the field enables them to understand Real World Learning, and indulge in the preparation of activities, Team building, and Planning.

File Description	Documents
Paste link for additional information	https://xavier.ac.in/pdf/NSS/NSS%20Activitie s%20Report%20(A.Y%202021-22).pdf
Upload any additional information	No File Uploaded

- 3.3.2 Number of awards and recognitions received for extension activities from government / government recognized bodies during the year
- 3.3.2.1 Total number of awards and recognition received for extension activities from Government/government recognized bodies during the year

1

File Description	Documents
Any additional information	No File Uploaded
Number of awards for extension activities in last 5 year(Data Template)	<u>View File</u>
e-copy of the award letters	<u>View File</u>

- 3.3.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs) during the year
- 3.3.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year

9

File Description	Documents
Reports of the event organized	No File Uploaded
Any additional information	No File Uploaded
Number of extension and outreach Programmes conducted with industry, community etc for the last year (Data Template)	<u>View File</u>

#### 3.3.4 - Number of students participating in extension activities at 3.3.3. above during the year

# 3.3.4.1 - Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations through NSS/NCC/ Red Cross/ YRC etc., during the year

50

File Description	Documents
Report of the event	No File Uploaded
Any additional information	No File Uploaded
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	<u>View File</u>

#### 3.4 - Collaboration

## 3.4.1 - The Institution has several collaborations/linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the- job training, research etc during the year

39

File Description	Documents
e-copies of linkage related Document	<u>View File</u>
Details of linkages with institutions/industries for internship (Data Template)	<u>View File</u>
Any additional information	No File Uploaded

- 3.4.2 Number of functional MoUs with national and international institutions, universities, industries, corporate houses etc. during the year
- 3.4.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. during the year

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2

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	<u>View File</u>
Any additional information	No File Uploaded
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	<u>View File</u>

#### INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

The campus is spread over an area of 3 acres with a built up area of 8399sq.m. comprising a building of high-standard, with 9 classrooms, 25 laboratories, and a computer centre with 72 computers. Seminar hall with a seating capacity of 300, language lab, drawing hall, conference room, tutorial rooms, workshop, library, administrative office, examination section, director office, TPO-office, HOD-cabins & canteen. The above mentioned infrastructure befits the norms of AICTE.

The institute is powered with a solar system with a capacity of 104kW.

There is a medical first aid facility available on campus for students and staff. There are fire extinguishers at appropriate places. Water purifiers are also available for drinking water on every floor.

At the beginning of academic year, requirements for replacements/up-gradation/addition of the existing infrastructure is carried out based on the suggestions obtained from lab In-charge, subject experts, lab assistant /technician, system administrator & the Heads of Departments, after reviewing course requirements.

To support disabled persons the institution has facilities like lift, ramp, rest rooms, wheelchair within the institution premises.

Institution has a good canteen facility which provides healthy &

hygienic food items. There is ample parking space in the campus.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	Nil

- 4.1.2 The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.
  - The institution has spacious ground for outdoor sports and adequate facilities for indoor games.
  - To encourage personality development, team spirit and leadership qualities among students, the institute encourages students to participate in various sports and games at different levels.
  - Sports facilities have been provided to students to participate in various games such as Cricket, Football, Basketball, and Volleyball and ensure they participate in the extra-curricular activities.
  - Yoga sessions are also conducted in the seminar hall.
  - Cultural Festival- Spandan is held every year to explore and nourish the hidden talents of the students. Every year the student council organizes various intercollegiate & intra college events such as dance, fashion show, street play etc.
  - Students are encouraged to organize various cultural activities in the college so that the students can efficiently conduct various events such as teachers day, engineers day, cultural day celebration, farewell, fresher party, etc.
  - Students organize a Tedx event every year.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://xavier.ac.in/Sparx.php, https://xavier.ac.in/TedxXIE.php

## 4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

11

#### 4.1.3.1 - Number of classrooms and seminar halls with ICT facilities

11

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://drive.google.com/file/d/1vrnoP9Sax42 Z4d-KJ49vCQvyautouQKp/view?usp=drivesdk
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<u>View File</u>

## 4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in Lakhs)

## 4.1.4.1 - Expenditure for infrastructure augmentation, excluding salary during the year (INR in lakhs)

30.47

File Description	Documents
Upload any additional information	No File Uploaded
Upload audited utilization statements	<u>View File</u>
Upload Details of budget allocation, excluding salary during the year (Data Template)	<u>View File</u>

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#### 4.2 - Library as a Learning Resource

#### 4.2.1 - Library is automated using Integrated Library Management System (ILMS)

The library is automated using SLIM software. This software is based on internationally accepted standards and is a comprehensive and user friendly library management software. It provides a wide range of features for library management. It is developed by Algorhythms Consultants Pvt Ltd, a leading Pune based software company in the field of library automation.

Name of ILMS software- SLIM21

Nature of automation- Partially.

Version- 3.3.0

Year of Automation -2010

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional Information	https://xavier.ac.in/Library.php

# 4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources

B. Any 3 of the above

File Description	Documents
Upload any additional information	No File Uploaded
Details of subscriptions like e- journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	<u>View File</u>

## 4.2.3 - Expenditure for purchase of books/e-books and subscription to journals/e- journals during the year (INR in Lakhs)

## 4.2.3.1 - Annual expenditure of purchase of books/e-books and subscription to journals/e-journals during the year (INR in Lakhs)

8.82508

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File Description	Documents
Any additional information	No File Uploaded
Audited statements of accounts	<u>View File</u>
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	<u>View File</u>

## 4.2.4 - Number per day usage of library by teachers and students (foot falls and login data for online access) (Data for the latest completed academic year)

#### 4.2.4.1 - Number of teachers and students using library per day over last one year

59

File Description	Documents
Any additional information	No File Uploaded
Details of library usage by teachers and students	No File Uploaded

#### 4.3 - IT Infrastructure

#### 4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

Institute received 15 (MAC) apple machines from ICICI foundation in october 2021 which areutilized for creating new lab. The institute has upgraded computer labs with 23 machinesreceived from Southampton marine office as donation for creating project lab. with 174 newDell Desktop Vostro, Intel Core i3, 4GB RAM systems in 2018, 46 new Dell Desktop Vostro, Intel Core i3, 4GB RAM systems in 2017, 21 Desktop All in One Dell Vostro 3800 ST i3, 4GBRAM systems in 2016, 24 Desktop All in One Dell Vostro 3800 ST i3, 4GB RAM systems in2015. All computers in the campus are connected to the internet using CAT-6 cable as it is essential forthem to work, also surplus Ethernet ports are provided for laptops or other devices in need ofinternet connectivity. The classroom laptops are connected to the internet using CAT-6 cable. The LAN cables are upgraded from CAT-5 to CAT-6 and installation of 14 new 24-port D-LINKswitches in the lab is done. In 2018, the numbers of labs were increased from 5 to 6 in Computer and IT department. The college has a computer centre with 74computers. The college has language lab with 24computers. The college has bought six HP Laser Jet Printers 1108 in 2018, two HP LJ P-1108 printers in2017, The internet connection bandwidth has been increased from 70Mbps to 100 Mbps in 2021. The college has 12 Reliance Jio WiFi hotspots, 07 Joispot WiFi hotspots, 5 wireless

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routersusing cyberoam provided to cover the wireless range throughout the college. The WiFi accesspoints are installed in the library, canteen and the corridors in all four floors. I The institute has Cyberoam firewall.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	Nil

#### **4.3.2 - Number of Computers**

586

File Description	Documents
Upload any additional information	No File Uploaded
Student – computer ratio	<u>View File</u>

## **4.3.3 - Bandwidth of internet connection in the** A. ? 50MBPS Institution

File Description	Documents
Upload any additional Information	No File Uploaded
Details of available bandwidth of internet connection in the Institution	No File Uploaded

#### 4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the year (INR in Lakhs)

4.4.1.1 - Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component during the year (INR in lakhs)

86.47

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts.	No File Uploaded
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	<u>View File</u>

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

The Institute has Administrative Department where the Admin Executive and junior admin executive monitor the everyday cleaning. Institute has an electrician and an assistant electrician who look into all electric related works.

Adequate in-house and contract workers are employed to take care of hygiene, cleanliness of the campus so as to provide a healthy environment. The contract workers and the peons contribute in maintaining the cleanliness of the college. Classrooms, Labs, Seminar hall and wash-rooms are cleaned and maintained. Garden and plants are well maintained for which two workers are separately appointed as Garden Attendants.

Maintenance and working condition of all properties/equipment on the campus is ensured through Annual maintenance contracts (AMC) for the elevators, intercoms, air conditioners, water purifiers, water coolers.

Students and faculty members are provided with separate login credentials to access the internet. Access to the internet is available in the lab even after college working hours. Apart from regular lab classes, students are offered value added courses through which they can practice and learn programming languages.

Lab Assistants work under the supervision of the System administrator, maintain the machines efficiently.Periodic maintenance is carried out by regularly cleaning the labs, equipment & updating all the software.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	Nil

#### STUDENT SUPPORT AND PROGRESSION

#### **5.1 - Student Support**

## 5.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

## 5.1.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year

194

File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	<u>View File</u>
Upload any additional information	<u>View File</u>
Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template)	<u>View File</u>

## 5.1.2 - Number of students benefitted by scholarships, free ships etc. provided by the institution / non- government agencies during the year

## 5.1.2.1 - Total number of students benefited by scholarships, free ships, etc provided by the institution / non- government agencies during the year

0

File Description	Documents
Upload any additional information	No File Uploaded
Number of students benefited by scholarships and free ships institution / non- government agencies in last 5 years (Date Template)	No File Uploaded

5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills

A. All of the above

File Description	Documents
Link to institutional website	xavier.ac.in
Any additional information	No File Uploaded
Details of capability building and skills enhancement initiatives (Data Template)	<u>View File</u>

## 5.1.4 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

467

## 5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

467

File Description	Documents
Any additional information	No File Uploaded
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	<u>View File</u>

# 5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

C. Any 2 of the above

File Description	Documents
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<u>View File</u>
Upload any additional information	<u>View File</u>
Details of student grievances including sexual harassment and ragging cases	No File Uploaded

#### 5.2 - Student Progression

#### 5.2.1 - Number of placement of outgoing students during the year

#### 5.2.1.1 - Number of outgoing students placed during the year

148

File Description	Documents
Self-attested list of students placed	<u>View File</u>
Upload any additional information	<u>View File</u>

#### 5.2.2 - Number of students progressing to higher education during the year

#### 5.2.2.1 - Number of outgoing student progression to higher education

16

File Description	Documents
Upload supporting data for student/alumni	<u>View File</u>
Any additional information	No File Uploaded
Details of student progression to higher education	<u>View File</u>

# 5.2.3 - Number of students qualifying in state/national/international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)

## 5.2.3.1 - Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government

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### examinations) during the year

9

File Description	Documents	
Upload supporting data for the same	<u>View File</u>	
Any additional information	No File Uploaded	

### **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 year
- 5.3.1.1 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 year.

01

File Description	Documents
e-copies of award letters and certificates	<u>View File</u>
Any additional information	No File Uploaded
Number of awards/medals for outstanding performance in sports/cultural activities at univer sity/state/national/international level (During the year) (Data Template)	<u>View File</u>

5.3.2 - Institution facilitates students' representation and engagement in various administrative, cocurricular and extracurricular activities (student council/ students representation on various bodies as per established processes and norms)

The aim of Students' Council (SC) is to involve the students in academic, co-curricular & extracurricular activities. These activities help the students to build and improve their skills such as planning, organizing, analysing, estimating and executing them along with trouble shooting. Students' Council members are General Secretary, Assistant General Secretary, and Secretary & Assistant Secretary for Technical, Cultural and Sports.

Following is the narrative about various Committees:

- 1. Cultural Committee coordinates various cultural events throughout the year. "Spandan" is the annual social gathering which showcases the cultural talent of students. The intercollegiate cultural competition is also organized by the students under this head.
- 2. Sports Committee organizes different indoor and outdoor sports events such as Cricket, Football, Carom, Chess etc.
- 3. Technical Committee namely "Transmission" organizes various technical competitions such as Paper Presentation, Technical Quiz, Robot War, and Model Making every year.
- 4. Magazine Committee: An annual magazine 'Connexieon' is published by this committee. Students express their talent in the form of articles, poetry, interviews of eminent personalities, etc.
- 5. Extension Activities: Social awareness is created by "National Service Scheme", which provides hands-on experience to students in delivering community service, like, Swachcha Bharat Abhiyan, Yoga day, Tree plantation etc.

File Description	Documents
Paste link for additional information	https://www.xavier.ac.in/Student%20Council.p hp
Upload any additional information	<u>View File</u>

- 5.3.3 Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)
- 5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution participated during the year

45

File Description	Documents
Report of the event	<u>View File</u>
Upload any additional information	No File Uploaded
Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions (Data Template)	<u>View File</u>

### 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

This Association provides a forum for the students to maintain and keep up their link with the Institute. It provides numerous services to the current students and alumni alike. The Association is involved in the many activities.

In general, the Alumni Association provides many opportunities through which the alumni remain connected with the Institute, by assisting the prospective/existing students in difficulties by equipping them with the recent technological advances.

Objectives of Xavier Institute Of Engineering Alumni Association (XIEAA) -

- To render a vibrant forum that promotes interaction and networking among all Alumni of the Institute.
- To recognize and identify the role of XIEAA as important stakeholder in the continuing quest to provide excellence in education by way of building academic and technical collaboration processes.
- To assist educational institutions like departments, schools, colleges, universities, training institutes, etc., to impart knowledge and skills on subjects related to technology, social, population and health sciences.
- To organize lectures, seminars, conventions, conferences, workshops, retreats, training programs, and any such gatherings for the purpose of achieving the objectives for which the XIEAA is established.
- To promote the professional development of students of XIEAA

and assist the young professionals in their career planning and development.

File Description	Documents
Paste link for additional information	https://www.xavier.ac.in/Alumni.php
Upload any additional information	<u>View File</u>

## **5.4.2 - Alumni contribution during the year** (INR in Lakhs)

D. 1 Lakhs - 3Lakhs

File Description	Documents
Upload any additional information	<u>View File</u>

### GOVERNANCE, LEADERSHIP AND MANAGEMENT

### 6.1 - Institutional Vision and Leadership

6.1.1 - The governance of the institution is reflective of and in tune with the vision and mission of the institution

### Vision:

To nurture the Joy of Excellence in a world of High Technology.

### Mission:

To strive to match global standards in Technical Education by Interaction with Industry, Continuous Staff training and Development of quality of life.

The Institute vision and mission clearly defines that it works towards the student's excellence with joy by matching global standards in technical education.

Nature of Governance and Leadership:

The Governing Council of the Institute is primarily responsible for policy decisions related to infrastructure, financial management, human resource planning and recruitment. The budgeting decisions are recommended by the College Development Committee (CDC). The Institute has also constituted an Internal Quality Assurance Cell (IQAC) for planning & execution of development activities & promotion of quality culture institution wide.

### Perceptive Plans:

Perspective plans of XIE includes:

- Strengthening the use of ICT facilities to augment the teaching-learning experiences
- Strengthening Industry Institute Interaction
- Strengthening research activities
- Increasing student's participation in state or national level competition.

Participation of the teachers in the decision-making bodies:

The Institute has one staff nominee in GC apart from the Principal. Six teaching staff have been elected in CDC apart from the Principal. The IQAC has 15 teaching staff members and 05 non-teaching staff members.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.1.2 - The effective leadership is visible in various institutional practices such as decentralization and participative management.

There are mainly 4 different Dean with well-defined functions that give academic and administrative leadership to the Institute.

- Dean Finance is responsible to send the budget proposal requirement letter to all the departments, place the order by raising the purchase order and get the feedback on receivable items and ask the HODs to record all the details.
- Dean Academics is responsible to maintain and keep the status of Admission and Enrolment of students. Conduct and monitor the Class Tests and coordinate the Evaluation process and ensure the timely declaration of results. Organize the meetings of all the institute level academic bodies and give feedback to the management about all the programmes that are planned and

discuss the waysof promoting such activities for the academic development.

- Dean R&D advises the management on national and international trends in the development of performance indicators for research.Utilize appropriately the funds allocated to research and research infrastructure proposals. Generate grants for research activities from external sources like CSIR, UGC, AICTE, etc.
- Dean Staff and Students' welfare is responsible for monitoringall staff and student related activities andmaintaining the students' discipline within college premises with the help of Head of Departments and Principal.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

### 6.2 - Strategy Development and Deployment

### 6.2.1 - The institutional Strategic/perspective plan is effectively deployed

### Strategic Plan:

The institute planned to start a new branch in the field of Computer Engineering. As planned, the institute has started a new branch named as "Computer Science and Engineering (Cyber Security, IoT, Blockchain Technology)" in the academic year 2022-23.

The Computer Science and Engineering (Cyber Security, IoT, Blockchain Technology) undergraduate engineering course, which is affiliated to the University of Mumbai, has an intake capacity of 60 seats. This BE-CSE (Cyber Security, IoT, Blockchain Technology) undergraduate programme familiarizes students with the functional and operational aspects of Cyber Security, IoT, and Blockchain Technology.

The Cyber Security course aims to equip the students with knowledge and skills required to defend the computer operating systems, networks, and data from cyber-attacks. Internet of Things (IoT) is a pervasive technology that interrelates computing devices to enable transfer of data over a network without requiring human-to-human or human-to-computer interaction. Blockchain applications go far beyond cryptocurrency and bitcoin. The students are exposed to the basic cryptographic primitives used in Blockchain with an understanding and working knowledge of the emerging blockchain technology.

File Description	Documents	
Strategic Plan and deployment documents on the website	No File Uploaded	
Paste link for additional information	https://www.xavier.ac.in/Computer%20Science% 20and%20Engineering.php	
Upload any additional information	No File Uploaded	

6.2.2 - The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.

XIE has a well-defined organizational structure to ensure efficient governance and management through effective decision making.

As per the Constitution of the college GC has been formed as the supreme administrative body of the institution.

College Development Committee is a statutory committee of 14 members formulated as per the mandatory requirements of the University which monitors the academic administration.

To foster and to realize fruitfully the vision and mission of the Institute, Chairman, Director, and Principal form the nucleus of the administration setup.

Chairman is the Chief Mentor, head of GC and final authority to provide final approval for all major policy matters on expansions, collaborations, financial outlays, budgetary allocations, and major admin-related decisions.

The Director is the Chief patron to ensure that the vision, mission, and PEOs are constantly compiled and monitored

The Principal is the Head of the Institution and Member Secretary of GC. He looks after the overall functioning with his team of Departmental Heads, the IQAC Coordinator, Deans, and Administrator.

IQAC is in place to provide prospective plans and works towards the

realization of academic goals. All the goals and plans are then put up in front of GC and CDC for review and approval.

File Description	Documents	
Paste link for additional information	Nil	
Link to Organogram of the Institution webpage	https://www.xavier.ac.in/Administration.php	
Upload any additional information	<u>View File</u>	

# 6.2.3 - Implementation of e-governance in areas of operation Administration Finance and Accounts Student Admission and Support Examination

Α.	All	of	the	above
----	-----	----	-----	-------

File Description	Documents
ERP (Enterprise Resource Planning)Document	<u>View File</u>
Screen shots of user interfaces	<u>View File</u>
Any additional information	<u>View File</u>
Details of implementation of e- governance in areas of operation, Administration etc (Data Template)	<u>View File</u>

### **6.3 - Faculty Empowerment Strategies**

### 6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff

The institution has a good welfare policy for its teaching and non-teaching faculty and staff. Performance of each member of the faculty as well as the non-teaching staff is evaluated by the institution yearly. Increments are given on yearly basis to all faculty and staff in the college.

Faculty Development Programs are also organized by the institution. The faculties are facilitated to attend various Professional Development Activities throughout the academic year. Training and Study Leave adjustment is approved for the faculty who wish to do their M.Tech, or Doctoral programs.

Provident fund is paid by the institution as per the statutory

rules. General/Medical Insurance plan is also extended to all faculty/staff by the institution. A Gratuity scheme is also in place for those who complete five years of continued service in the Institution.

A lady employee who has been confirmed and who does not have two or more children living as on the date of the application, shall be entitled for maternity leave on full pay for a period of 90 days from the date of its commencement

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

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

2

File Description	Documents
Upload any additional information	<u>View File</u>
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	<u>View File</u>

- 6.3.3 Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year
- 6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff during the year

5

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	No File Uploaded
Reports of Academic Staff College or similar centers	No File Uploaded
Upload any additional information	<u>View File</u>
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	<u>View File</u>

6.3.4 - Number of teachers undergoing online/face-to-face Faculty development Programmes (FDP) during the year (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)

### 6.3.4.1 - Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course during the year

36

File Description	Documents
IQAC report summary	No File Uploaded
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
Upload any additional information	<u>View File</u>
Details of teachers attending professional development programmes during the year (Data Template)	<u>View File</u>

### 6.3.5 - Institutions Performance Appraisal System for teaching and non-teaching staff

Performance appraisal is a formal method of evaluation of the performance of the Faculty members.

The Institute has its own well-defined proforma to evaluate faculty members through evaluation of their teaching-learning process, research and other activities. Performa consists the following

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### particulars:

- Personal Detail
- Leave Details
- Training Details Faculty has undergone
- The contributions of the said Faculty towards the Department and to the Institution work like:
- Administrative responsibilities such as Head/ Chairperson /Dean/ Director/Coordinator
- 2. Examination and evaluation duties assigned by the University
- 3. Student related co-curricular, extension and field-based activities such as students clubs, career counseling, study visits, students' seminars and other events, cultural, sports, NSS and community services.
- 4. Organizing seminars/conferences/workshops, other University activities.
- 5. Conducting minor or major research project
- 6. Paper publication in peer-reviewed or UGC list of Journals.
- Work plan and output during the assessment period
- Short term and long-term goals necessary to increase their efficiency.

After considering the remarks given by HoD, the Principal evaluates and writes his comments and suggests the required action.

Non Teaching staff are assessed by their respective heads based on various factors like punctuality, regularity, promptness, dependability, knowledge competency, technical ability, relationship with superiors, communication skills, interpersonal skills, initiative, quality utilization of resources, physical fitness.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

### 6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

All account books are maintained by the accounts department as per the total admissions that have taken place by following the rules and regulations of the fee regulation authority of the state.

Internal accountants shall verify the books of accounts every day. Entries done by one accountant are verified by the other accountant. Errors found (if any) are analyzed and fixed instantly. External auditor shall verify all the account books once in a year and provide his/her input to incorporate the required changes as per the statutory requirements.

File Description	Documents	
Paste link for additional information	https://www.xavier.ac.in/pdf/Audited%202021- 22.pdf	
Upload any additional information	No File Uploaded	

## 6.4.2 - Funds / Grants received from non-government bodies, individuals, philanthropers during the year (not covered in Criterion III)

## 6.4.2.1 - Total Grants received from non-government bodies, individuals, Philanthropers during the year (INR in Lakhs)

6		4	6	5	0	0
v	•	-	v	_	v	v

File Description	Documents
Annual statements of accounts	No File Uploaded
Any additional information	<u>View File</u>
Details of Funds / Grants received from of the non- government bodies, individuals, Philanthropers during the year (Data Template)	<u>View File</u>

### 6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

The college has a well-formulated financial policy which ensures effective mobilization and optimal utilization of finances for academic, administrative and other developmental purposes. Institute has made the necessary provision for efficient and effective use of available funds for each academic year.

The primary fund required for the development of the institute along with the day to day expenditures comes from tuition fees and development fees paid by the students. The Head of Departments plan and propose a budget depending upon the requirement. The budget is allocated as per the plan and placed in front of the governing council for the final approval. Once it is sanctioned by the governing council it is utilized throughout the year and internal as well as external budget auditing is done at the end of the financial year.

The Governing Council of the Institute in assistance with the Director constantly monitors the effective mobilization of funds and the optimal utilization of resources to progress in achieving the Vision and Mission of the Institute. The funds are also kept in fixed deposit for earning interest. Revenues are also earned through industrial consultancy and grants received from government, non-government agencies and AICTE.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

### 6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the

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### quality assurance strategies and processes

Best practices institutionalized as a result of IQAC initiatives:

- 1. Subject Summary Video Submission
- 2. Academic Audit Practice per semester
- 1. Subject Summary Video Submission:

All students are asked to submit a 3 to 5 minutes' summary video for each subject at the end of the semester preferably before Internal Assessment Test II. It helps students to improve their communication and presentation skills apart from the subject knowledge. Integrating one video assignment as part ofcurriculum assignments also eliminates plagiarism. The best video in each subject is chosen and also awarded with scholarship amount and an appreciation letter.

2. Academic Audit Practice per semester:

Implementation of Academic Audit Practice from AY 2021-22 was implemented using a self-evaluation document. The implementation process has a class teacher or domain expert as an internal auditor and two or more external auditors appointed and approved by IQACto check the course files and submit a report to HoD.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

In Xavier Institute of Engineering the teaching faculty implements many teaching learning reforms such as Mind Map, Collaborative Learning, Summary Video, Presentation on Technical Paper Review, Lab Assignments, Flipped Classroom, Quizzes, Mock Viva, Group Discussion or Activity, Brainstorming, Role Plays, Project based Learning, Case Study, Blended Learning using NPTEL.

1. Mind Map

Objective: A Mind Map is a diagram used to visually organize information into a hierarchy, showing relationships among pieces of the whole.

### Method:

- Choose a specific topic form a particular module and write it at the center of the mind map.
- Select key words and write them around the central theme (Use different colours and case letters)
- Connect thicker lines starting from the central image. The subsequent lines can be thinner as they radiate out from the center.
- Use images, icons, emphasis and show associations to develop your own personal style of Mind Mapping

### 1. Collaborative Learning

Collaborative learning is an educational approach to teaching and learning that involves groups of students working together to solve a problem or complete a task. Collaborative learning actively engages students in their own learning. After initial guidance, the students teach each other by addressing misunderstandings and clarifying misconceptions.

File Description	Documents	
Paste link for additional information	https://www.xavier.ac.in/pdf/EXTC/website_TL I_Report_21-22.pdf	
Upload any additional information	<u>View File</u>	

# 6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

### A. All of the above

File Description	Documents
Paste web link of Annual reports of Institution	Nil
Upload e-copies of the accreditations and certifications	<u>View File</u>
Upload any additional information	<u>View File</u>
Upload details of Quality assurance initiatives of the institution (Data Template)	<u>View File</u>

### INSTITUTIONAL VALUES AND BEST PRACTICES

### 7.1 - Institutional Values and Social Responsibilities

### 7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

One of the Institution's objectives is to provide education that is sensitive to the needs of various sections of the society with a special emphasis on gender equality. Students of both genders are given equal opportunities to grow and develop as responsible citizens of the future. The Institute has a Women's Development Cell (WDC) consisting of the female faculty members, staff and students as the committee members. Every year, the International women's day is celebrated wherein great women are invited to share their life experiences; thus motivating the girl students to overcome their life's challenges and fulfill their dreams by developing their immense potential. The institute also felicitates girl students with awards like the best all-rounder girl student (final year), woman of intelligence, woman of creativity, woman of research to encourage them, and organizes different competitions to nurture their talents. Girl students play major roles as members and office-bearers of the Student Council; also heading different posts in other organizing committees like the cultural fest, Spandan and the technical fest; Transmission. Their participation is at par with the boys in the sports event, Sparx and National Service Scheme, NSS.

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File Description	Documents
Annual gender sensitization action plan	https://drive.google.com/drive/folders/10B0j JlfbC8tcoXhcnUqpgwoahdofqJvZ
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://drive.google.com/drive/folders/10B0j JlfbC8tcoXhcnUqpgwoahdofqJvZ

# 7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy Biogas plant Wheeling to the Grid Sensorbased energy conservation Use of LED bulbs/power efficient equipment

B. Any 3 of the above

File Description	Documents
Geo tagged Photographs	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

### Solid Waste Management

• To achieve a healthy and conducive environment in our campus, we stringently follow the waste segregation by employing Dry and Wet waste bins throughout the campus. Dry waste as well as Wet waste generated is sent to Municipal Corporation separately for safe disposal.

### Liquid Waste Management

- Liquid wastes generated by the College are of two types:
- 1. Sewage waste.
- 2. Laboratory, canteen effluent.
  - The liquid wastes are mainly drained through drainage system.

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### Waste Recycling& Reuse System

- For AY 21-22 the used plastic bottles, broken plastic chairs, old plastic carton boxes from Institution was collected by scrap merchant and sent directly to mill for recycling.
- Summarily, old answers books, old term work files are collected from institution directly sent to mill for recycle purpose.

### E-Waste Management

Electronic goods are put to optimum use; the minor repairs are carried out by the laboratory assistants but the major repairs are handled by the technical assistants and are reused. The equipment which cannot be refurbished is disassembled and segregated to send them to Xavier Society Orphanage Schools (Manmad).

• The students also gain awareness about E-waste management and its effects by studying a subject on Environmental Management.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	No File Uploaded
Geo tagged photographs of the facilities	Nil
Any other relevant information	<u>View File</u>

# 7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Any other relevant information	No File Uploaded

### 7.1.5 - Green campus initiatives include

### 7.1.5.1 - The institutional initiatives for

A. Any 4 or All of the above

### greening the campus are as follows:

- 1. Restricted entry of automobiles
- 2. Use of Bicycles/ Battery powered vehicles
- 3. Pedestrian Friendly pathways
- 4. Ban on use of Plastic
- 5. landscaping with trees and plants

File Description	Documents
Geo tagged photos / videos of the facilities	<u>View File</u>
Any other relevant documents	<u>View File</u>

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

# 7.1.6.1 - The institutional environment and energy initiatives are confirmed through the following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities

A. Any 4 or all of the above

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	<u>View File</u>
Certification by the auditing agency	<u>View File</u>
Certificates of the awards received	No File Uploaded
Any other relevant information	<u>View File</u>

7.1.7 - The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment 5. Provision for enquiry and information:

A. Any 4 or all of the above

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|--|

File Description	Documents
Geo tagged photographs / videos of the facilities	<u>View File</u>
Policy documents and information brochures on the support to be provided	<u>View File</u>
Details of the Software procured for providing the assistance	No File Uploaded
Any other relevant information	<u>View File</u>

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

XIE has always been at the forefront in sensitizing students to the cultural, regional, linguistic, communal, and socioeconomic diversities of the state and the nation. The College always encourages the students to organize and participate in different programs that are organized through its Interfaith committee, as well as encourages them to participate in such activities organized at inter-college, university levels, and by other Government or nongovernment organizations to make them sensitive towards cultural, regional, linguistic, communal and socio economic diversities. Some of the major programs organized by the college in this connection are listed below:

Events organized by Interfaith Committee

Christmas Celebration:

Christmas was celebrated in Seminar Hall ,XIE campus, on 21st Dec 2021 from 11:00 am onwards. Teaching & Non-teaching staff of XIE attended the same. Student Council decorated the Seminar Hall and arranged fun activities for the staff.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<u>View File</u>
Any other relevant information	<u>View File</u>

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

Sensitization of students and employees of the Institution to the constitutional obligations is carried out through the curriculum as well as through extra-curricular activities. Many of the subjects offered include topics which sensitize the students about the constitutional obligations e.g. one Institute level elective subject is based on cyber security and Law. In this subject, students study various concepts related to cybercrime, cyberspace, Indian IT act, etc. Also, some students take a course on Environment Management in their final year which gives them insight into environment acts, wildlife protection act, forest act, global environmental concerns, etc.

The NSS Unit organized the following major activities in the academic year 2021-22: Independence Day Celebration; Blood Donation camp at CSMT Railway Station; conducting webinars on Poster Making - Gandhian Ideologies, 'Poster Making - Swatch Bharat Abhiyan', Swatch Bharat Pledge, Blood Donation camp at Dadar Railway Station. It also organized programs such as 73rd The Republic day, Yoga day, Teachers' day, Youth Day, etc. holding various competitions and activities of photography and poster-making. The NSS cell of XIE also actively participates in the webinars and other activities organized by the NSS cell of Mumbai University.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff

4. Annual awareness programmes on Code of Conduct are organized

### A. All of the above

File Description	Documents
Code of ethics policy document	<u>View File</u>
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	<u>View File</u>
Any other relevant information	<u>View File</u>

### 7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

The Institute celebrates various festivals; each one with its unique celebration of its history, legend and significance. The Institute celebrates days of national importance such as the Independence Day and the Republic Day. The Independence Dayof India was celebrated and attended by the students, staff and faculty members, the Director, Principal and Chief guest. The day was commemorated with the unfurling of the National Flag, singing the National Anthem and other patriotic songs to instill a sense of patriotism and love towards the country in the staff and the students.

International Women's Day celebration took place on 5th March 2022 organized by the Women's Development Cell of XIE.

Every year, teacher's day is celebrated on 5th September to recognize and appreciate the contribution of teachers. On account of Gandhi Jayanti, poster making event on Swachh Bharat Abhiyaan and Slogan writing competition was organized by NSS-XIE. On the occasion of World AIDS day, the NSS students of XIE took part in the awareness campaign and designed posters.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	<u>View File</u>
Geo tagged photographs of some of the events	<u>View File</u>
Any other relevant information	No File Uploaded

### 7.2 - Best Practices

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

Title of the Practices:

- 1. Implementation of Incentive-driven Approach to Enhance Academic Excellence
- 2.Customized Placement Training to Cultivate Suitable Candidates for Industry Placements

Detailed content for the above 2 best practices is attached as a document in relevant information.

File Description	Documents
Best practices in the Institutional web site	No File Uploaded
Any other relevant information	<u>View File</u>

### 7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

Holistic development through excellence.

The Institute's vision is "To nurture the joy of excellence in a world of high technology." XIE brings this vision to life through its value-based approach of education. It follows the Jesuit principle of 'Cura Personalis', that is, it focuses on holistic development of the students. The institute not only boosts intellectual growth of the students with continuous student development programs and MoUs with foreign universities, but also nurtures their extracurricular capabilities with sports and cultural events like Spandan and Sparx. It also instils empathy in the students through activities undertaken under the NSS (National Service Scheme) which reflect the Jesuit principle of 'serving others'. It thus forms the students to not only flourish intellectually, but also readies them to meet the current challenges and become socially responsible citizens of the future. XIE's Mentoring program also invigorates this aim of holistic development by providing personalized attention and close guidance to all the students through their mentors. The institute constantly celebrates and appreciates the academic, professional and extracurricular

achievements of the staff and the students through its official weekly newsletter, the XIE Samachar. Thus, XIE endeavours to nurture the joy of excellence by providing a conducive atmosphere for holistic growth of everyone on the campus.

File Description	Documents
Appropriate web in the Institutional website	No File Uploaded
Any other relevant information	<u>View File</u>

### 7.3.2 - Plan of action for the next academic year

- Conducting Seminars / Workshops / Special lectures by Departments / Committees in association withIQAC
- Formation of formats related to SSR
- Preparation for II cycle of NAAC
- Academic calendar 2022 23
- Participation of teaching staff in Seminar / Conference / Workshop
- Organizing Seminars / Guest Lecture / Workshop on IPR