



SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

JAWAHARLAL COLLEGE OF ENGINEERING AND TECHNOLOGY

**JAWAHAR GARDENS, LAKKIDI, MANGALAM P O, OTTAPALAM, PALAKKAD
679301**

www.jawaharlalcolleges.com

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

(Draft)

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Jawaharlal College of Engineering and Technology (JCET) is a self –financing college incepted in the year 2008 by Nehru College of Education and Charitable Trust, which was headed by Late P K Das, FIE, F.I.Mech.E, M.S Engg., A.F.R.Ae.S (London) C. Engg. a well-known educationalist and Philanthropist. The Institute is located in Lakkidi, Mangalam, Ottappalam, Palakkad and it promotes education for rural and needy people. JCET is affiliated to the APJ Abdul Kalam Technological University, Thiruvananthapuram, Kerala from the year 2015 onwards and had been affiliated to the University of Calicut, Kozhikode, Kerala from 2008 to 2014. JCET is approved by AICTE, New Delhi and accredited by NBA, New Delhi.

Vision

Vision

Emerge as a Centre of Excellence for professional education to produce high quality engineers and entrepreneurs for the development of the region and the Nation

Mission

M1 To become an ultimate destination for acquiring latest and advanced knowledge in the multidisciplinary domains.

M2: To provide high quality education in engineering and technology through innovative teaching-learning practices, research and consultancy, embedded with professional ethics.

M3: To promote intellectual curiosity and thirst for acquiring knowledge through outcome based education.

M4: To have partnership with industry and reputed institutions to enhance the employability skills of the students and pedagogical pursuits.

M5: To leverage technologies to solve the real life societal problems through community services.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Well-qualified experienced faculty, Best of the infrastructure, well-sciplined and hardworking

students, well-trained support staff, dynamic NCPIR department etc.

- Teaching Faculty have attracted extramural grants from national funding agencies.
- Effective mentor-mentee system and concern for slow learners who are assisted through remedial classes.
- Responsive administration, which has become more decentralized.
- Excellent extension activities.
- Educated and enlightened top management,
- TBI on Healthcare and IOT.

Institutional Weakness

- While gross enrollment has increased, the low enrollment in a few departments is a cause for concern.
- The potential for academy-industry linkage should be exploited more.

Institutional Opportunity

- In growing economic scenario, Average salary packages would go up and quality of intake would be improved.
- The Innovation Centre can encourage faculty to file more patents.
- Being an affiliated institute implementing latest courses in the curriculum takes time.

Institutional Challenge

In Every threat, there is an opportunity.

- To produce highly skilled graduates in sufficient quantity to meet the domestic and the global market demand, especially in the knowledge-intensive segments of the economy.
- To further enhance the quality in higher education to prepare the students to cope with the pace of the world and be globally competitive workforce and citizens.

- To build moral fiber and Integrity in the educational system.

Future Plans:

- To take the institution at greater heights and become the best autonomous institution across the state.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Jawaharlal College of Engineering and Technology (JCET) follows the curriculum and syllabus designed and offered by APJ Abdul Kalam Technological University, Kerala as it is an affiliated institution. The faculty members take part in such activities for strengthening the curriculum and syllabus. They find the curricular gap and take steps to fill them in a systematic way. University releases an academic calendar and the institution prepares a calendar for every academic year comprising the activities at the institute and department section level. Departments conduct value added courses designed and delivered in addition to the KTU courses in alignment with the Vision, Mission and Outcome Based Education.

The institute enriches the curricular with the following ways.

- Strict adherence to the Academic Calendar.
- Establishment of Centre of Excellence in collaboration with industry
- Industry connected Training Programmes through Nehru Centre for Placements and Industry Relations (NCPIR)
- In addition to Life Skills as per KTU, students are provided with soft skills and life skills programmes
- Institute integrates the experiences of students in inter-disciplinary and multi-disciplinary fields through NCC, NSS, TBI, IEDC, Professional Bodies and Students Clubs
- Implementation of the Reservations Policy and provision of scholarships for socio-economically weaker students

Teaching-learning and Evaluation

JCET focuses on holistic intellectual, social, emotional and aesthetic development of the students. The faculty in Jawaharlal College of Engineering and Technology affiliated to APJAKTU, balance teaching and research. However, in Departments where substantial numbers of students are from socially weaker sections of society, more emphasis is placed on teaching. Students who studied in a regional medium are provided free coaching to improve their written and spoken English skills. Teachers combine traditional teaching methods with use of modern teaching aids. Faculty members prepare lecture plans and also maintain a weekly log of what was actually transacted in Lecturer hall. In addition to participating in the

Orientation and Refresher courses, teachers can avail facilities offered in the Department to upgrade their pedagogical skills. The Internal Quality Assurance Cell conducts quality audit and conducts programmes for improving the quality of teaching. Remedial classes are organized for students (Slow learners) who have problems coping with the class work. ICT is used to ensure 24x7 learning environment. In addition to the core courses, the APJAKTU offers the students to enroll in Minor, Honors and global elective courses, both within their respective departments as well as in other departments. Students shall take courses from MOOC, SWAYAM and NPTEL and earn credits. To cultivate broad intellectual outlook, students are required to enroll every semester for one Add on course. The Evaluation process is transparent. Students are evaluated in a continuous assessment process, comprising written examinations, class seminars, and assignments. Students can peruse the valued answer scripts for the internal assessment exam. The attainment on Course Outcomes (COs) and Programme Outcomes (POs) are made through systematic direct and indirect assessment methods. There is also a strong feedback system in place, which is critically analyzed and addressed, to ensure quality enhancement. Teaching pedagogy focuses on enhancing the attributes of graduating students. Experiential learning is attained through in-plant training, internships, mini and major projects, workshops, technical and arts fest. Participative learning is ensured with peer to peer learning, group assignments and Quality Circle – Placement Circle (QC-PC) activities. Extracurricular and skill development program contribute to the development of graduate students.

Research, Innovations and Extension

Jawaharlal College of Engineering and Technology instills research focus and technical expertise in innovation among faculty members and students through industry linked projects, government funded projects and conferences. The research and consultancy activities have helped to attract some funding from a wide spectrum of national agencies to the tune of Lakhs during the past years, establish collaborations with prestigious research institutions, foster academy-industry interaction, address issues of social and national importance, spawn inventions, extend service to social organizations and most importantly, led to value addition for faculty members and students in the academic world. The significant increase in the quality of publications in the last five years improves the base for research in coming days. In order to establish institute-industry interface, the Institute has the membership with various professional bodies. The Nehru Centre for Placements and Industry Relations (NCPIR) of the Institute interacts with the Industry and corporate world. NCPIR provides the vital support essential for networking and collaborating with corporate houses, professional associations and alumni to strengthen institute-industry interface. Apart from that, the department of corporate interface sends faculty members and students to various conferences/workshops conducted by these professional bodies from time to time to provide global exposure to students.

Ten faculty members serve on the editorial board of journals as editors and referees. In addition, a ten faculty members are in steering committees of international organizations and societies. More than 106 research articles have been published in international / national journals since the last five Years.

Infrastructure and Learning Resources

Set against the backdrop of extensive green cover, Jawaharlal College of Engineering and Technology has aesthetically designed buildings, which are architecturally striking and responsive to environmental concerns. A deliberate attempt has been made to preserve the natural habitat as much as possible. The

infrastructure provides easy access to differently abled people thereby making it infrastructural inclusive. There are several common conference halls and departments have their own well-equipped seminar halls and the teaching block has well-appointed and spacious ICT enabled classrooms, tutorial and department rooms which are made available to the departments on request. The institution has been constantly upgrading the infrastructure in the past years to keep pace with increasing demand and additional requirements with financial assistance. The infrastructure was improved with the financial support of the NGI Trust. The research and computer labs are equipped with state-of-the-art equipment and technology comparable with any top institutions across the state. The institution has invested substantially over the last few years to improve the classroom and laboratory infrastructure, books and journals, and online resources for teaching, learning, and research.

Recent additions to infrastructure include an Emergency Medical care, a rapid access Medical Wing, hostel for other state students, the Innovation Centre, and canteens. The Centre for Excellence and Instrumentation Laboratory has facilities for advanced research work in the natural/Artificial sciences. The General Library provides access to the students and Science Direct for the physical and natural sciences. The library staff also impart training to students in the use of e-resources.

Student Support and Progression

Jawaharlal College of Engineering and Technology has always been a student-centric institution. Student mentoring and support has been a primary focus of the institution and the residential nature of the institution has made it a reality. The students are mentored from the time of admission up to the completion of their programme at various standard levels. Every class has a faculty member assigned to counsel and mentor the students. Hostellers have access to their hostel officials. For the other state students, Advisor provides guidance to the students about admissions, on-campus facilities etc. During their stay, students can avail of a number of support systems and services for information, academic and career guidance, financial, co-curricular and extracurricular activities. The Information Desk in the Administrative Block provides necessary information for students on all aspects of campus life. The academic calendar and handbook give information on the academic schedule and curriculum. All departments have associations under the auspices of which students can interact with eminent academicians and scientists. Students can make use of both the Central and departmental libraries for reference work, and computer and internet services for surfing. The scholarship section provides information on various financial support schemes. The Equal Opportunities Cell caters to the welfare of SC/ST students, including dissemination of information about financial support, and conducting special classes for preparing students for higher education and placement related services examinations. The Placement Cell arranges for campus recruitment. Other support services include redressal of Students Grievances through SMS, in-house language laboratories, Placement Cell, Alumni Associations, and canteen. Girl students can address their grievances to the Women Grievance Cell (which also addresses sexual harassment cases). Students in need of counseling have access to professional counselors. Medical treatment in our NGI PKDAS hospital is free for students. A medical insurance scheme is in place for the benefit of students. The Physical Education department with the gymnasium, impressive courts and tracks provides avenues for sports and games. Students actively Participate in extension activities through NCC, NSS, and Youth Red Cross. NGI TBI / IEDC provided ample opportunities for the students to enumerate their entrepreneur skills.

Governance, Leadership and Management

The Institute has been providing excellence in Engineering and Management education since last decade. Institute's Governing Council has a progressive outlook for evolving and sustaining the quality policy and plans for professionally running the institution. Management lays the guidelines and broad policy parameters for the future academic growth of the institution. The Principal executes the policy decisions taken by the Governing Council through its staff to maintain and achieve the goals and objectives as laid down by the Governing body. The leadership formulates policies and action plans in view of the changing needs of the society from time to time to achieve the stated mission. Leadership of the institution has involved the representatives of various stakeholders at various levels to ensure the interaction with stakeholders, protection of their interests and constructive contribution by the stakeholders and society as a whole proper policy formulations are done after detailed study, analysis, deliberations and consultations with the experts and stakeholders. The Institute has a defined hierarchy for the successful monitoring and effective implementation of plans and policies. Regular meetings of the Governing body of the Institute are held as per rules. Subcommittees of the Governing body such as Academic Committee, Purchase Committee, and Selection Committee regularly meet to monitor the academic/infrastructural projects and effective implementation of the plans and policies of the managing committees to attain its wider goals and objectives. The Principal associates with him/her various Programme Chairpersons, senior faculty members and in-charges of various activities and units in the shape of advisory committee which takes collective decisions in the light of goals and objectives of the institute. To attain and achieve the goals and objectives of the institution, the Institute is working with a missionary spirit for the last 14 years in the service of the society. All the administrative components i.e. the Management, the Principal, Programme chairpersons, and faculty members work in tandem as an effective team. Faculty members to research are encouraged to contribute and write research papers for national and international journals, articles, publish patents, organize seminars and conferences, prepare Research Proposals and consultancy assignments.

Institutional Values and Best Practices

The Institute conducts a Green Audit of its campus and facilities. The Institute is continuously engaged for making the campus eco-friendly. Rain water harvesting system has been installed at various points in the institution and hostels. The Institute under takes massive tree plantation efforts to neutralize the emission of carbon in and around the college.

QC-PC Activities / Engineering/Technical/ Management reading session are to enhance communication skills of the students. They are useful to explore the hidden capability of the students for identifying and analyzing the recent business environment and develop an insight into the same. During this session students are encouraged to present on the topic related to the contemporary and emerging areas of engineering products to identify and analyze the recent business product environment of the country. It bridges the gap between the theory and practice in the business world. This practice increases the confidence level of the students to express their views on the technical environment (national/international) and ability to handle the cross questions. In this process, apart from gaining the business acumen in common the communication skills of the students are enhanced manifold. The Mentor-Mentee system has made a qualitative difference in the academic performance and instilled self-confidence among students. Each faculty member monitors the academic progress of a group of students and guides them to shape their professional career besides dealing with personal issues. The mentors also interact with the parents if necessary. Maintaining a weekly/Monthly log of how the lesson plans have been transacted in the classroom. NCC/ NSS/YRC instill social responsibility by making participation in various events/activities. Through these organizations, AIDS awareness programmes, blood donation

camps, various health camps and socially relevant activities have been undertaken. The institute imbibes discipline, values and ethics in every activity involving the students and faculty members. For instance, through the Morning Prayer and national anthem in the evening, the entire population of the institute is inculcated with the importance of nation building. It reflects the motto of NGI, Moulding true citizens. Grievance redressal cell is active and address the grievances of students.

NAAC

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	JAWAHARLAL COLLEGE OF ENGINEERING AND TECHNOLOGY
Address	Jawahar Gardens, Lakkidi, Mangalam P O, Ottapalam, Palakkad
City	Ottapalam
State	Kerala
Pin	679301
Website	www.jawaharlalcolleges.com

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Gunasekaran N	0466-2230173	9605771070	-	principal@jawaharlalcolleges.com
IQAC / CIQA coordinator	Vijitha G	0466-2344800	8891132670	-	vijithag@jawaharlalcolleges.com

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of establishment of the college	29-06-2008

University to which the college is affiliated/ or which governs the college (if it is a constituent college)

State	University name	Document
Kerala	A.P.J. Abdul Kalam Technological University	View Document

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	View Document	02-07-2021	12	

Details of autonomy

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No
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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	Jawahar Gardens, Lakkidi, Mangalam P O, Ottapalam, Palakkad	Rural	20.51	25182

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Aero nautical Engineering	48	Plus Two	English	90	58
UG	BTech,Civil Engineering	48	Plus Two	English	60	38
UG	BTech,Computer Science And Engineering	48	Plus Two	English	60	58
UG	BTech,Electronics And Communication Engineering	48	Plus Two	English	60	19
UG	BTech,Mechanical Engineering	48	Plus Two	English	60	20
PG	Mtech,Electronics And Communication Engineering	24	B.Tech	English	18	0
PG	Mtech,Electronics And Communication Engineering	24	B.Tech	English	18	0
PG	MBA,Management	24	Batchlors Degree	English	60	34

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	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	18				3				87			
Recruited	16	2	0	18	1	2	0	3	41	46	0	87
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
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				27
Recruited	16	11	0	27
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
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				31
Recruited	20	11	0	31
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	11	2	0	0	1	0	0	1	0	15
M.Phil.	0	0	0	0	1	0	0	0	0	1
PG	5	0	0	1	0	0	41	45	0	92
UG	0	0	0	0	0	0	0	0	0	0

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

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

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
	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	387	0	105	0	492
	Female	254	0	45	0	299
	Others	0	0	0	0	0
PG	Male	7	0	0	0	7
	Female	70	0	0	0	70
	Others	0	0	0	0	0

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

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	1	3	8	4
	Female	4	3	5	6
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	87	87	102	44
	Female	77	74	60	37
	Others	0	0	0	0
General	Male	33	48	40	37
	Female	24	32	35	15
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		226	247	250	143

1. Multidisciplinary/interdisciplinary:	<p>JCET has a clear vision and Mission towards Molding True Citizens which is the motto of the Trust. The Vision and Mission of the Institute are imbibed into the different levels with the Vision and Mission of the departments / sections. All the stake holders viz students, parents, Industry, Alumni, Faculty Members and others are delineated with Vision / Mission through meetings, display boards, website etc.,. In addition to the curriculum, the Institute instills the interest among the students that Mother nature is supreme. All events are imbibing this culture. Arts / culture programmes are part of the academic calendar towards multi disciplinary learning and adoption in life. Students are encouraged to choose elective courses from other programmes for interdisciplinary approach. Basic Sciences and Humanities courses are interwoven into the curriculum. For example, there are open elective courses from Mathematics and students shall avail it in eight semester as well. The institute regularly organizes industrial visits field visits and tours during the period of study. NCPIR arranges training programmes and internships in addition to the effort by the Departments. Curriculum is flexible such that it has got 3 baskets for the choice of students. Life skills, Environmental Sciences, sustainable Engineering, Design Engineering, Professional ethics courses are available for the students to learn and adapt in their programme of study. Most of the Minor / Major projects are interdisciplinary in nature and it enables them with inter/Multi-disciplinary approach. Though the institute is ready to take up multi entry / multi exit approach, the structure needs to be further discussed and implemented. Faculty members and students are encouraged to understand the needs of the society rather the needs of programme of study and hence the research percolates from small projects to research level projects. The institute inspires the students to hone their skills in the domain of their passion and apply the skills in real life. A lot of girls are in NCC and lead from the front.</p>
2. Academic bank of credits (ABC):	<p>Within the ambit of affiliated to APJAKTU, the institute encouraged the faculty members and students to explore the choice of credits through the choice of the courses. The Institute has not registered under the ABC. For UG Programmes, 162 credits are expected to be completed by a student as per the</p>

	<p>affiliating University. We wish to explore the NEP implementation for multi entry and exit through the proper split of credits in each year with the kind of the courses to be completed for certificate, Diploma and Degree programmes as well. Faculty members are encouraged to specialize in different thrust areas and they are part of the University Board of studies at PG level. Learning materials such as text books, e books, are published by the faculty members. However they have to improve the quality and quantity. Direct and indirect assessment methods are employed for the attainment of COs and POs.</p>
3. Skill development:	<p>The Institute has taken an exclusive mission statement towards making the students skilled for the requirement of industries. NCPIR, takes lead in devising the training programmes based on the requirement of the industries and provide skill development courses in the campus itself. For this NSQF is taken into account and accordingly the courses are designed and delivered. The institute designs add on courses which ensures the skill development of the students. For example, Mechanical Engineering offers Design using CAD software, Civil Engineering offers Building Design. Computer Science and Engineering offers Programming wise Python, ECE offers Raspey Di and Aeronautical offers Modelling and Analysis of Aircraft structures. The institute starts the day with Quality Circle – Placement Circle (QC-PC) Activities with a Quote in it. Each day, a student will describe a quote and generate positivity among the students. Moreover students do group discussions on varied aspects and enlighten others as well. In curriculum there is a course on Constitution of India and the students have to secure a pass. Various events / Programmes organized in the Campus reflects the culture of India and ensures the respect for senior citizen, values and ethos. A courses on life skills is taught in the first year and the students are trained with language skills. The students enroll themselves in NCC / NSS, student clubs, Professional bodies and department associations for developing their leadership skills through physical, mental and emotional fitness programmes.</p>
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	<p>The institute adapts the bilingual mode and delivering classes is a means to make the students understand theory and concepts since the institute is located in</p>

	<p>rural part of Kerala. The Vernacular language helps the faculty members to build the confidence with the students and further build their learning with English. The students are encouraged to present their views in vernacular language and if they are conversant with the knowledge, they could make a lot of impact on the subject matter later. For example, there are a lot of student settled down in different parts of the Nation and World and they are successful in life. There is a limitation in offering a degree programme by the institute as this is an affiliated Institution to APJAKTU. However institute is ready to offer certificate, diploma and degree programmes once it is entitled by NEP 2020.</p>
5. Focus on Outcome based education (OBE):	<p>The institute promotes the outcome based education. The alumni of JCET are excelling in their career after completing their studies duly. For example, Mr. K. Arjun, 2017 Batch B.Tech Mechanical Engineering has secured UPSC rank of 265th in All India level. Ms. Ragi Ramachandran 2010-2014 Batch of B.Tech Aero has become Flying Officer in Indian Airforce. There are possible through systematic delivery of programmes with the defined Course Outcomes, Programme Outcome, Programme Specific Outcome, Programme Educational Objectives, Mission and Vision of the department leading to vision and Mission of the Institution. Faculty members and staff are trained in setting the targets and achieving them towards the Course Outcome attainment and Programm Outcome attainment. Equally attainments of laboratory courses are done systematically. Bloom's taxonomy is also linked with the assessments. The course of a project is mapped with many programmes outcomes and attained. A few projects have been published as papers and patents. Activity points are included in the curriculum to meet the requirements of certain POs such as Engineer and Society, Ethics, Communication etc., Skill development is focused at different stages of student transformation from first year to final year.</p>
6. Distance education/online education:	<p>Since our institute is an affiliated college, we are not offering distance education/online education.</p>

Extended Profile

1 Program

1.1

Number of courses offered by the Institution across all programs during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
242	255	290	293	302
File Description		Document		
Institutional data prescribed format		View Document		

1.2

Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
8	9	9	11	13

2 Students

2.1

Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
868	965	1087	1355	1701
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
145	151	208	216	274

File Description	Document
Institutional data in prescribed format	View Document

2.3

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

2020-21	2019-20	2018-19	2017-18	2016-17
184	320	357	476	532
File Description	Document			
Institutional data in prescribed format	View Document			

3 Teachers

3.1

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

2020-21	2019-20	2018-19	2017-18	2016-17
108	114	133	170	194
File Description	Document			
Institutional data in prescribed format	View Document			

3.2

Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
93	112	128	180	192
File Description	Document			
Institutional data in prescribed format	View Document			

4 Institution

4.1

Total number of classrooms and seminar halls

Response: 39

4.2

Total Expenditure excluding salary year-wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
409.28	577.05	572.47	698.73	731.99

4.3

Number of Computers

Response: 348

4. Quality Indicator Framework(QIF)

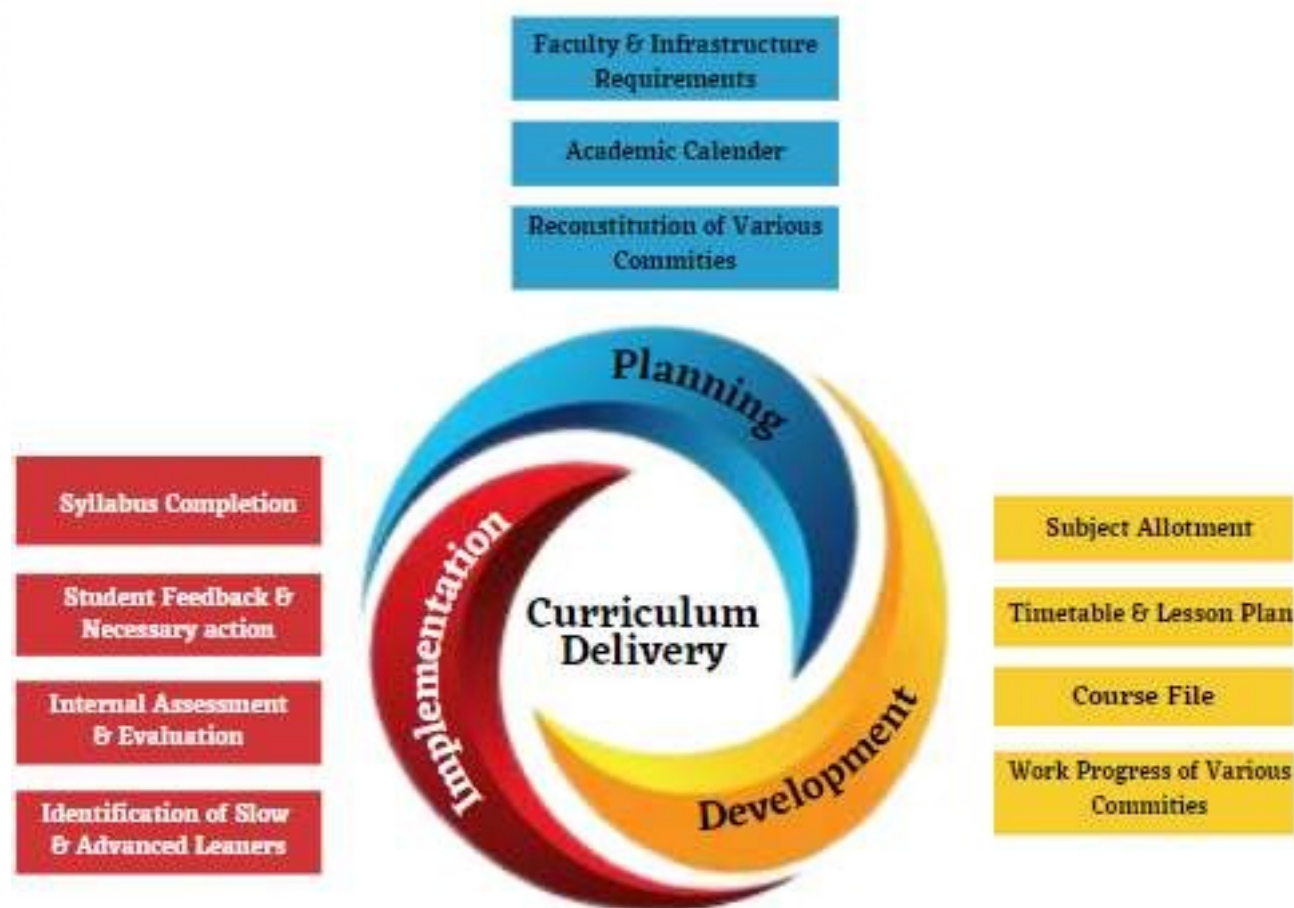
Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The Institution ensures effective curriculum delivery through a well planned and documented process

Response:

Jawaharlal College of Engineering & Technology, Lakkidi, Palakkad is affiliated to APJ Abdul Kalam Technological University and all its programmes follow the regulations, Curriculum and Syllabi of APJAKTU.



The Timetable Committee of the college meets at the beginning of each semester & prepares the timetable based on the syllabus prescribed by the APJAKTU. Timetable committee ensures the effective deployment of the units of time for academic and co-curricular purposes, Placement activities, etc. The academic activities are framed as per a set of teaching plans and are based on an academic calendar. This calendar is detailed enough to cover the available timeframe. The teaching plans consist of detailed apportionment of the syllabus among all the faculty members of a particular department. A course file is maintained for each subject which includes Syllabus, Lesson plan, Time table, Course Objectives, Course Outcomes, CO-PO mapping, Course materials, Tutorial sheet, Assignment and Course completion status, Question Bank & previous Year Question papers.

For the effective delivery of the curriculum, the institute offers Hybrid method of teaching which includes both online & offline mode. MBA department offers flipped classroom approach of teaching which includes instructional strategy and a type of blended learning which aims to increase student engagement and learning by having students' complete readings at home and work on live problem-solving during class-time. The institute provides all necessary infrastructural facilities to the faculty such as Audio-Visual Classrooms, Language lab, Educational Softwares, E- Journals, Reference books in library and Digital library facility, which help them in their routine teaching-learning process. The attendance of students is monitored periodically and displayed on the notice board. The examinations are conducted by the college as per the direction of the University. The examination schedules are displayed on the notice boards well in advance. Exams are conducted in a strict way to avoid any malpractice. The College does internal evaluation as per the guidelines given by the University and it maintains all the records associated with the examination which includes the students' result analysis. Co-curricular and extra-curricular activities like Nehru Science Innovation & Technology Expo (NSITE), Malhar, Bloom, NCC & NSS etc. aim to bring about holistic personality development of students. Students are also encouraged to participate in technical competitions and ideation contests as part of co-curricular activities. Students' chapters of professional bodies like IEEE, IEI along with Clubs like Coders Club organize technical competitions, workshops, seminars, etc. to make the students up with the fast-changing industrial needs. NGI TBI will act as a "One Stop Shop Business Incubation Centre" for Startups in facilitating an Entrepreneurial & Innovative Ecosystem to all the stakeholders including the Students, Faculty, Industry, Investors, and Society at large.

File Description	Document
Upload Additional information	View Document

1.1.2 The institution adheres to the academic calendar including for the conduct of CIE

Response:

Before the commencement of each semester APJAKTU publishes 'Academic calendar' containing the relevant information regarding the teaching learning schedule (working days), various events to be organized, holidays, dates of internal examination, uploading of attendance & internal marks, semester examination etc. Through academic calendar, teachers & students get aware of all the activities regarding continuous internal evaluation process and it is also published on website of the college and displayed in the Academic office. The students' academic progress is monitored regularly by adopting the strategy of continuous internal evaluation, seminars, project work, unit test and semester examinations. The review of internal assessment is taken by the Principal regularly. For the implementation of Internal Assessment Process, Examination committee is formed at the college level which monitor overall internal assessment process. For the end semester examination based on the registration of students university prepares the appearing students list and after receiving enrolled list of the students' by the University, the college prepares seating arrangement chart, list of invigilators etc.

The weak students are identified after the internal examinations and special care and training is given to them. Retest is organized for the students who were absent due to unavoidable situation. In addition the internal audit conducted by IQAC which ensures the compliance to verify with documentary evidence.

File Description	Document
Upload Additional information	View Document

1.1.3 Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years

1. Academic council/BoS of Affiliating university
2. Setting of question papers for UG/PG programs
3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses
4. Assessment /evaluation process of the affiliating University

Response: B. Any 3 of the above

File Description	Document
Institutional data in prescribed format	View Document
Details of participation of teachers in various bodies/activities provided as a response to the metric	View Document

1.2 Academic Flexibility

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

Response: 100

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

Response: 8

File Description	Document
Minutes of relevant Academic Council/ BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2.2 Number of Add on /Certificate programs offered during the last five years

Response: 58

1.2.2.1 How many Add on /Certificate programs are offered within the last 5 years.

2020-21	2019-20	2018-19	2017-18	2016-17
12	10	12	12	12

File Description	Document
List of Add on /Certificate programs	View Document
Brochure or any other document relating to Add on /Certificate programs	View Document

1.2.3 Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last five years

Response: 41.81

1.2.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
328	408	558	553	627

File Description	Document
Details of the students enrolled in Subjects related to certificate/Add-on programs	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

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

Response:

JCET is a coeducation college where both boys and girls are given equal opportunities in terms of admissions to various programmes. The institution follows mixed classrooms and department rooms without any discrimination for boys and girls/gents and ladies. Gender equality entails the concept of equality between men and women who are free to develop their personal abilities and make choices without the limitations set by stereotypes and prejudices. Academic Subjects such as Professional Ethics, Constitution of India, Environment, and Sustainability are taught with due importance to impart awareness

to the students. The Institute is committed to provide quality education in Engineering and Technology, to transform the youths into committed technical personal for the social and economic well-being of the Nation with integral development of personality and character building. Student mentoring is done very efficiently in the Institute and any grievances related to academic or non-academic matters are addressed by the Faculty Advisor, Senior Faculty members & HODs of the departments concerned. Disciplinary action Committee, Anti Ragging Committee, Women Cell, and Grievance Redressed Cell take care of gender issues if any. A well formed code of conduct is formulated to motivate the students become a responsible citizen.

As part of the Teaching-learning process, the faculty members are actively participating in the different Workshops & FDPs on Universal Human Values.

IEEE WIE (Woman in Engineering) affinity group of JCET is dedicated to promoting women engineers and scientists and inspiring girls to follow their academic interests in a career in Engineering and Science. IEEE SB JCET has completed a humanitarian project known as tviS- Solar Electrification Enhancement Project for the inmates of Poly Garden, (Shelter for Mentally unstable people) Lakkidi, Palakkad. IEEE students Branch actively participated in the flood relief activities of the Kerala Government and handed over 100 Emergency lamps for the flood-affected people.

NSS Unit of JCET is very vibrant and actively participating in all social and economic issues of our fellow beings. The ability to deal with ones feelings and understand the feelings of others in any given situation helps one to complement knowledge with human values. The major activities of the NSS unit of JCET are organizing Blood donation camps in the Institute in which students as well as Faculty members participate, cleaning of various water bodies, Road cleaning, collection for flood relief camp, cleaning of flood-affected houses, organizing awareness campaigns for road safety, anti-plastic campaigns and anti-drug rallies and awareness programs.

File Description	Document
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.	View Document

1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during last five years

Response: 41.89

1.3.2.1 Number of courses that include experiential learning through project work/field work/internship year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
152	97	92	137	91

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any Average percentage of courses that include experiential learning through project work/field work/internship	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document

1.3.3 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

Response: 34.79

1.3.3.1 Number of students undertaking project work/field work / internships

Response: 302

File Description	Document
List of programmes and number of students undertaking project work/field work/ /internships	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders 1) Students 2)Teachers 3)Employers 4)Alumni

Response: A. All of the above

File Description	Document
Any additional information (Upload)	View Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document
URL for stakeholder feedback report	View Document

1.4.2 Feedback process of the Institution may be classified as follows: Options:

- 1.Feedback collected, analysed and action taken and feedback available on website
- 2.Feedback collected, analysed and action has been taken

3.Feedback collected and analysed

4.Feedback collected

5. Feedback not collected

Response: A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document
Upload any additional information	View Document
URL for feedback report	View Document

NAAC

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 45

2.1.1.1 Number of students admitted year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
227	247	250	143	424

2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
426	444	612	636	804

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)

Response: 74.65

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

2020-21	2019-20	2018-19	2017-18	2016-17
131	144	139	85	223

File Description	Document
Average percentage of seats filled against seats reserved	View Document
Any additional information	View Document

2.2 Catering to Student Diversity

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

Response:

Assessment Process

JCET believes in outcome-based learning processes, where we identify students as slow learners and advanced learners based on the following methodology.

Methodology to identify Slow Learners and Advanced Learners

The Slow Learners and Advanced Learners are identified through a score based on their active participation and performance in the internal assessment test, assignment, interaction in class and CGPA.

- For first year students, the performance in the internal assessment test-I, assignment – I and class interaction are considered as factors for score calculation. For higher semester, CGPA till last published result is also considered.
- If the students score greater than or equal to 50% are identified as advanced learners, and if the students score is less than 50% are identified as slow learners.

Methodologies to support both Advanced and Slow Learners

- Language proficiency sessions for different levels of students administered through the language lab.
- Rigorous training on language standardization, accent neutralization and Listening, Speaking, Reading, and Writing (LSRW) skills.
- Entrepreneur skill development through NGI-TBI & IEDC JCET-KSUM
- Networking through Professional bodies memberships
- Technical and creative workshops/seminars
- Career guidance sessions and placement training by NCPIR-NGI
- Tracking through Yellow card - students' performance details including academic and non-academic
- Opportunities to participate in hackathons, paper presentations, project competitions and internships

- The Mentor establishes a close relationship with each student, makes them familiar to college practices, follows their progress regularly and guides them to take part in the classroom and co-curricular activities throughout the program.

Methodologies to support Slow Learners

- Counseling is given to the Slow Learners by subject handling faculty and mentor
- Peer learning groups formed for effective learning
- Students' performances are intimated to the parents for their better care and attention to improve their ward's studies and career
- Discussion on important questions and question bank is carried out in the additional / remedial coaching classes.

Impact Analysis

- Students are able to participate effectively in class room and co-curricular activities after proper guidance.
- The marks scored by the students in the university exams are improved.
- The additional coaching and remedial classes help them to improve their performance in the internal exams.

Methodologies to encourage Advanced Learners

- The advanced learners are encouraged to organize as well as to participate in symposia, workshops, conference, project and seminars to gain knowledge.
- Constant motivation is given to them to prepare for Placement, Competitive Exams and entrepreneurship.
- Students are motivated and guided to get University Rank.
- Encouraged to take up MOOC and NPTEL Courses
- Guided to take honors and minor degree courses provided by the APJ-AKTU
- Considered for the office bearers of various professional bodies and lead professional activities at college, university and national levels as to give a chance to develop their communication, leadership & team building skills.
- Encouraged to lead project based learning.
- Encouraged to conduct student-student learning through peer learning groups.

Impact Analysis

- Students take part in National and International conferences, Project Presentation.

- Students are placed in MNCs and some students become entrepreneurs.
- Students' scores well in competitive and University exams.

File Description	Document
Upload any additional information	View Document

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

Response: 8:1

File Description	Document
Any additional information	View Document

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

Response:

The college authority always encourages faculty members for utilizing their capabilities and expertise in focusing on outcome-based and student-centric learning methods. Faculty members make efforts in making the learning activity more interactive by adopting the below-mentioned student-centric methods. **Experiential learning** is a process through which students develop knowledge, skills, and values from direct experiences outside a traditional academic setting. The College, by virtue of its funding principles, is committed to community outreach. Students get to know the pulse of the society, its needs and challenges through experiential learning.

Industry visits and industry –academia conclaves to help students develop comprehensive idea of the working of the industrial sector.

- Internships with reputed firms add to the scaling-up of professional experience of the students
- Hands-on training in relevant skill-based courses to enable them to actuate their latent interest in the industry
- Academic projects, mini-projects and design projects
- E-learning programmes
- Conclaves and industry interaction events conducted by the college-clubs and professional bodies like IEEE,ISTE,IEI.
- Placement programmes .
- Technical fests, invited talks, creative workshops in conducive environments
- Lab courses

A student's reflection on the experiential learning is assessed through field /internship reports, post visit discussions and student presentations.

In **participative learning** the process and outcomes are owned by the team of students and the teacher. The students take greater control of their own learning by participating in the planning and implementation of service projects. It provides students with an opportunity to gain professional values, knowledge, and skills. Students also gain a deeper understanding of the meaning of civic responsibility and prepare themselves for serving the community. Students are encouraged to involve and participate in various learning platforms offered by the college.

Encouragement to involve and participate in various learning platforms offered by the college.

- Group discussions and peer learning circles.
- Webinars and video conferences to increase the scope for participation.
- Inter-disciplinary projects and case studies undertaken to widen the horizon of the discipline
- Encouragement to enroll for MOOC Courses
- Technical/cultural/entrepreneurial activities are promoted among students which will help them to attain activity points as per university regulation
- Alumni interactions
- QC-PC activities are implemented for all students to improve the students personality.

Problem-solving is the ability to identify and solve problems by applying appropriate skills systematically. Following are problem solving methods are used.

- Case-study method
- Soft skill development programmes by eminent trainers.
- Experts' (industry executives and public figures) talks on problem solving methods
- Ample opportunities for 'do-it-yourself' techniques
- Participation in various projects funded by government and non-governmental organizations, where problem solving methodologies are put into practice which functions through unique initiatives of the college like NGI-TBI, NewGen IEDC, IEDC-JCET

File Description	Document
Upload any additional information	View Document

2.3.2 Teachers use ICT enabled tools for effective teaching-learning process.

Response:

The college is equipped with ICT tools to enhance the quality of teaching- learning process. Majority of the classrooms are equipped with Interactive Intelligent Panels

- ICT classrooms enabled with high quality projector, laptop, internet facility and smart boards
- Seminar halls are equipped with all digital facilities
- Printers and scanners installed at labs, HOD cabins and all prominent places
- Photocopier machines - multifunction printers are available at all prominent places in the college

- Use of Learning Management System that provides custom learning environments for students in different ways
- I-Campuz, the College ERP used for

Attendance-management and examination marks

Used by teachers to share notes and references

Used as LMS for resource planning

- Digital library

Makes online content available to the college community

Allows access to subscription-based journals from prestigious sources

Students and teachers can get remote access to the worldwide resources.

- Language Lab

Teachers make use of the lab to enhance language learning through specific software for improving Listening, Speaking, Reading, and Writing (LSRW) skills. Also used by teachers and students who pursue competitive exams, language tests and online courses

- Continuous and consistent ICT-based learning environment

Support and appreciation for faculty and students to take up MOOC courses

Well-equipped computer labs help teachers and students to avail online content within the college

Teachers also use NPTEL platform for accessing online content in their respective fields and this helps them to get updated on the contemporary situation of the discipline.

File Description	Document
Upload any additional information	View Document
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	View Document

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

Response: 12:1

2.3.3.1 Number of mentors

Response: 75	
File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll.	View Document
mentor/mentee ratio	View Document
Circulars pertaining to assigning mentors to mentees	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years	
Response: 103.46	
File Description	Document
Year wise full time teachers and sanctioned posts for 5years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	View Document

2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Response: 8.74

2.4.2.1 Number of full time teachers with *Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt.* year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
16	11	11	09	11

File Description	Document
List of number of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. and number of full time teachers for 5 years (Data Template)	View Document
Any additional information	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)**Response:** 5.43**2.4.3.1 Total experience of full-time teachers**

Response: 586.29

File Description	Document
List of Teachers including their PAN, designation, dept and experience details(Data Template)	View Document
Any additional information	View Document

2.5 Evaluation Process and Reforms**2.5.1 Mechanism of internal assessment is transparent and robust in terms of frequency and mode****Response:**

College is affiliated to APJ Abdul Kalam Technological University, and hence, follows its rules and guidelines regarding the evaluation process of students. Academic calendar is prepared at the beginning of each semester and is made available on the college website and notice-boards. Thus, students know about the dates of series tests, submission of assignments and schedule of internal assessment of laboratory courses and project well in advance.

For internal assessment, an exam cell is constituted with Principal, a senior professor and an assistant professor. Two series tests are conducted for the internal assessment. Series Test is conducted for duration of 2 hours. Each series test is conducted for maximum marks of 50, covering 50% of the syllabus. Faculty teaching that subject prepares two sets of question papers with answer keys. These question papers are verified by the department scrutiny team. The question papers are finally submitted to the IQAC director and exam cell. Exam cell conducts internal exams in a coordinated manner. If a student is not able to attend the internal exams due to any valid reason, he/she should take prior permission from the tutor and HoD. Retest is conducted covering all the modules in that case. The faculty prepares answer-key with mark allocation. Answer sheets are evaluated and are shown to students within five days on completion of last exam. If there is any discrepancy, they can correct it immediately. Answer booklets are acknowledged by students and are collected back and retained in the department for six months after HoD verification. For theory courses, group assignments are given to improve the learning skills of the students.

Evaluation pattern for the theory courses are

Course	Attendance (marks)	Test (marks)	Assignment/Class work (marks)
Theory	10	25	15
Drawing	10	20	20

Internal mark lists are prepared and displayed in the notice board. The marks are entered in the I-Campus software.

For laboratory course, each experiment will be evaluated, continuously as

Attendance (marks)	Continuous Assessment (marks)	Final Internal Test (marks)
15	30	30

The external evaluation of the lab courses are done as per APJKTU norms and it is out of 75 marks.

As per B.Tech 2015 Regulation, project evaluation is done through internal and external evaluations for 20 and 80 marks respectively. Individual student performance is evaluated in all reviews and external examinations. The quality of the project and its progress is enhanced by continuous monitoring of work by respective guides. Writing abilities of students are evaluated and updated through review/guide suggestions.

Project Evaluation		
Two Progress assessment by supervisor	Report	Presentation and viva voce
20 marks	30 marks	50 marks

Final internal marks and attendance percentage are entered in APJKTU portal by the faculty concerned. Each faculty member is assigned with KTU login id and password provided by University, for entering final internal marks

File Description	Document
Any additional information	View Document

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

Response:

A transparent, time-bound and efficient method is being followed in JCET for dealing internal examination related grievances. The college follows strictly the guidelines and rules issued by the APJ Abdul Kalam Technological University while conducting internal and end semester examinations.

At institute level, an internal exam cell is constituted with Principal as the chairman, senior professor as the member secretary and an assistant professor as the member, to handle the issues regarding evaluation process.

The faculty member evaluates the papers within five days of completion of the last series test. The evaluated answer sheets are shown to students in class and faculty member undertakes individual grievances with a student on the paper if required by the student. Students can approach the respective subject faculty member within 2 days for any grievance on evaluation, mark allocation and tabulation. If any discrepancies are reported by the students, then they are resolved by the faculty member immediately

and the corrected marks are entered in the course diary and published in the notice board.

If a student is not satisfied with the marks awarded even after resolved by the teacher, then he can represent the same to the HOD concerned and to the grievance redressal cell if necessary.

All such representations are taken positively and are reassessed by another teacher if necessary.

Consolidated Sessional marks are published in the notice boards and students can resolve their grievances regarding sessional marks as per the same mechanism with in two working days. The rectified sessional marks are verified by HoD and Principal then entered in the university web portal

File Description	Document
Any additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Response:

The institute is affiliated to APJ Abdul Kalam Technological University, Kerala. The respective departments frame the Program Outcomes (POs), Program Specific Outcomes (PSOs) and the respective faculty members handling the subjects frame Course Outcomes (COs). The Vision and Mission statement of the institute and the syllabus content and considered while framing the POs, PSOs and COs.

The COs are framed by the faculty handling respective subjects with the help of Heads of the department and also experts in the particular subject. Course committee meetings are conducted at regular intervals and the institute assists the faculty members to achieve these objectives by proper supporting systems. The COs are explained to the students in the class after teaching each topic in the class rooms. The COs are also present in the series test examination question papers. The student is well aware of the COs of the course. The POs and COs are available in the course file prepared by the faculty member while mapping with POs.

The faculty members prepare the lesson plan understanding the course outcomes. POs for all programs and courses offered by the institution are displayed in the institute website for reference of all stakeholders.

The POs are displayed in all classrooms and laboratories. They disseminated to all the stake holders of the program through, faculty members, student awareness workshops, student induction programs and faculty meetings.

All the planning and execution are directed towards meeting these objectives. The program outcomes and program specific outcomes are achieved through the curriculum courses. The course outcomes of each course is linked to the program outcomes and a set of performance criteria is mapped to provide direct quantitative evidence that program outcome is attained.

The course outcomes are thus directly and quantitatively assessed, and mapped to the program outcomes and program specific outcomes. Therefore if the course outcomes are attained, they provide direct quantitative evidence that program outcome is attained.

The course outcomes of each course are mapped to the Program Outcomes with a level of emphasis being HIGH (3), MODERATE (2) and LOW (1).

Projects are reviewed by industrial experts and experienced faculty members to oversee whether they are in tune with the learning outcomes. The importance of Employability is insisted upon as one of the main learning outcomes. Faculty members write COs of their respective course and refer them while executing the course plan. Faculty members refer the syllabus to understand POs and COs thoroughly before delivering the courses to students. Reviews of these POs and COs are taken by the stakeholders and suggestions are discussed in meetings. The improvements are implemented in all the academic activities.

File Description	Document
Upload COs for all Programmes (exemplars from Glossary)	View Document
Upload any additional information	View Document

2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

Response:

The institute evaluates the attainment of COs and POs through evaluation processes mentioned below. The artifacts that demonstrate skills, personal characteristics and accomplishments required for measuring attainment, are collected from Direct and Indirect Assessment

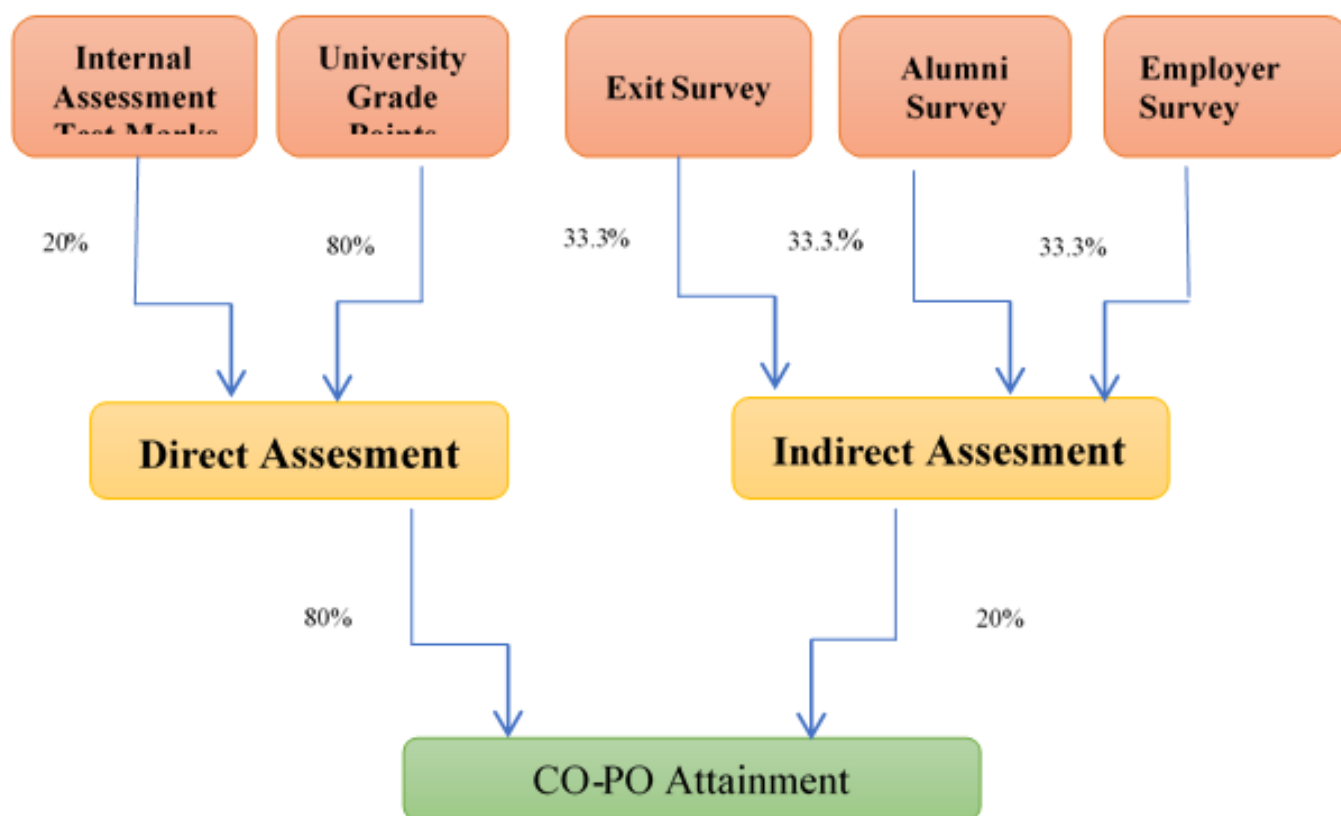


Figure 2.6.2a : CO-PO Attainment

Direct Assessment Methods

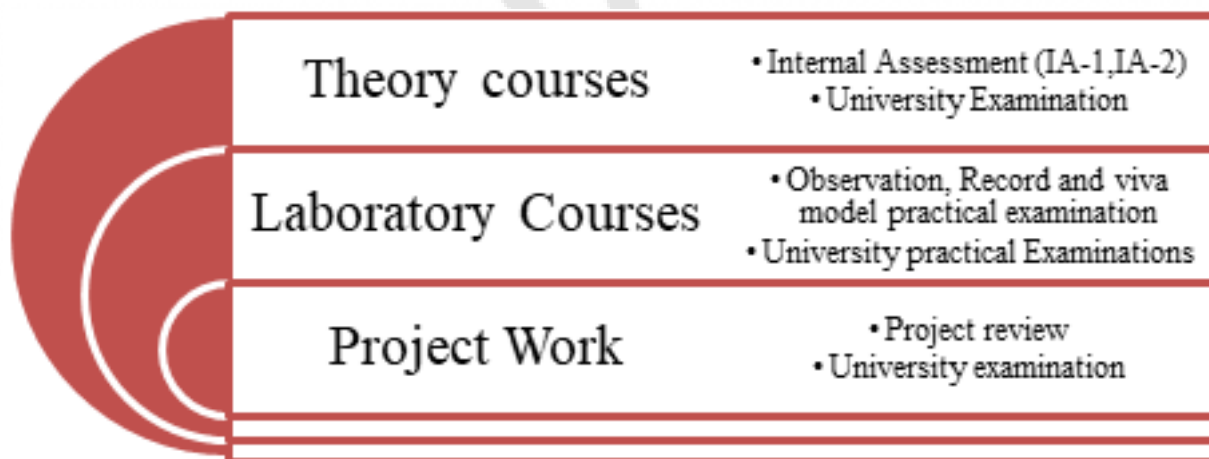


Figure 2.6.2b : Direct Assessment Methods

Evaluation Procedure:

i) Theory Courses

Internal Assessment question paper will be set based on CO. Totally two tests covers first four COs and an assignment covers last two COs

Table 2.6.2 a:Evaluation Procedure:Theory courses

Internal exam / course outcome	CO1	CO2	CO3	CO4	CO5	CO6
Internal Assessment 1 (IA1)	Y	Y				
Internal Assessment 2 (IA2)			Y	Y		
Internal Assessment 3 (IA3)					Y	Y

As per circular dated 13.01.2019 from university, changes in the Internal Assessment have been made. Totally two tests covering entire COs.

Table 2.6.2b:Evaluation Procedure:Theory courses

Internal exam / course outcome	CO1	CO2	CO3	CO4	CO5	CO6
Internal Assessment 1 (IA1)	Y	Y	Y			
Internal Assessment 2 (IA2)				Y	Y	Y

ii)Laboratory Courses

A model practical examination is conducted to assess the ability of students to perform given task by integrating the knowledge gained from related theory course and regular lab sessions.

iii)Project work

Students take up a project/mini project as part of curriculum. It helps to develop their innovative ideas by applying technical knowledge acquired through various courses. Finally, it is assessed by external examiners.

Calculation of CO Attainment through -Direct Attainment

Internal Assessment(IA)

Attainment level of each course are follows:

Attainment Level = 1, if 40% of students secured more than 50% Marks

Attainment Level = 2, if 50% of students secured more than 50% Marks

Attainment Level = 3, if 60% of students secured more than 50% Marks

University Examination

Attainment level of each course are follows:

Attainment Level = 1, if 40% of students secured at least C grade

Attainment Level = 2, if 50% of students secured at least C grade

Attainment Level = 3, if 60% of students secured at least C grade

Attainment level through	(0.7 x Attainment level based on University
--------------------------	---

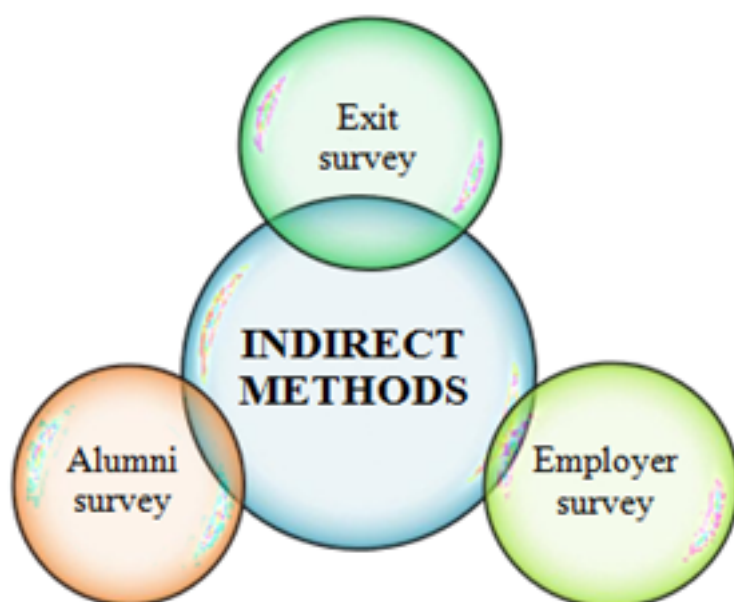
direct assessment	=	Examination marks) + (0.3 x Attainment level based on IA Test marks)
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Calculation of PO Attainment:

PO Attainment =

$$\frac{\text{COvsPO Average of the course}}{\text{Max Attainment Value}} \times \text{CO Attainment of the course}$$

Indirect Assessment Method



EXIT SURVEY

Exit survey consists of questionnaires and feedback for final year students. Student's feedback are collected and assessed by HODs and Principal for continuous improvement.

ALUMINI SURVEY

Alumni survey consists of questionnaires and feedback formats for alumni students. Feedbacks from students are collected and assessed by HODs and Principal for continuous improvement.

EMPLOYER SURVEY

Employer survey consists of questionnaires and feedback from Company/Industry authority. Feedbacks

are collected by Coordinator and assessed by HODs and Principal for continuous improvement.

Overall PO Attainment = (80% of Direct Assessment) + (20% of Indirect Assessment)

File Description	Document
Upload any additional information	View Document

2.6.3 Average pass percentage of Students during last five years

Response: 86.76

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

2020-21	2019-20	2018-19	2017-18	2016-17
166	314	231	421	491

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

2020-21	2019-20	2018-19	2017-18	2016-17
184	320	357	476	532

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	View Document
Upload any additional information	View Document
Paste link for the annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

File Description	Document
Upload database of all currently enrolled students (Data Template)	View Document

NAAAC

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, Chairs in the institution during the last five years (INR in Lakhs)

Response: 3.04

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

2020-21	2019-20	2018-19	2017-18	2016-17
0.4875	0.5543	0	2	0

File Description	Document
List of endowments / projects with details of grants	View Document
e-copies of the grant award letters for sponsored research projects / endowments	View Document

3.1.2 Percentage of teachers recognized as research guides (latest completed academic year)

Response: 0.93

3.1.2.1 Number of teachers recognized as research guides

Response: 1

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.1.3 Percentage of departments having Research projects funded by government and non government agencies during the last five years

Response: 17.65

3.1.3.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1	4	0	1	0

3.1.3.2 Number of departments offering academic programmes

2020-21	2019-20	2018-19	2017-18	2016-17
6	7	7	7	7

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

Response:

Innovation is the key to success in today's competitive world. The institute has created an ecosystem which fosters innovation & creativity among students and teachers. NGI-TBI is exclusively for pitching ideas and culling it and converting it into practical propositions. The following points are presented as part of this criteria.

1. NGI-TBI: Technology Business Incubation Centre is exclusively for fostering and imparting innovative ideas and proposals for big-business.
2. Entrepreneurship Research Cell: Entrepreneurship Research Cell conducts various activities such as awareness camp, guest lectures etc.,
3. Research Culture: Institute gives lots of importance for research culture. The students undergo both internship as well as summer project as part of their curriculum and both are given utmost importance by the academic fraternity. Faculty members are doing their PhD with lot of involvement and this is the most vital part of their career.
4. Collaboration: The Institution is having tie-up with organisation such as The Ramco Cements Ltd & Palakkad Management Association for their support and guidance in placement and networking. The Placement cell is having a good rapport with many industries and it helps in developing the overall personality of the students.
5. Mentorship: Right from the beginning of the programme, each student is assigned a mentor and this mentoring is happening throughout the year. Through the process, the mentee opens up and expresses his/her issues and the mentor through suitable intervention, resolves the issue. It is a great solace for students to share their feelings and vent out their emotions in a healthy way.

6. Education: The institution has student development activities, through various curricular, co-curricular and extra-curricular activities. Yoga, Guest Lecture and Activities are conducted with this objective. The annual Management Meet Udhyama is the case in point. This meet is conducted by the students themselves. Funding, Budgeting, Organizing, and Publicizing everything is done by the students. In that manner we conduct Seminar/ Webinar and Personality Development Programme also.
7. Culture, Management and Best Practices: The Institution holds the highest value system and imbibes the sense of responsibility, civic-sense and compassionate behavior. Orphanage Visit, Blood- Donation, NSS activities Quality Circle (QC)- Placement Circle (PC) activities and other cultural programmes are meant for that only. The institute has Malhar, Bloom and Sports Day for the overall development of the personality.
8. Certification: Lot of value-added programmes like digital marketing, Logistics Supply chain Management, Airline & Airport Management etc., are given to the students for their practical knowledge and skills.
9. Access to Global Value Chain: Industrial Visits, Out bound board training, Internship, Field Work and Mini Projects are given to enhance the industry/institute interface.
10. Human Capital: The world class faculty members through their intellectual capital imparts innovative and creative pedagogical methods.

File Description	Document
Upload any additional information	View Document

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

Response: 37

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

2020-21	2019-20	2018-19	2017-18	2016-17
11	6	9	7	4

File Description	Document
Report of the event	View Document
List of workshops/seminars during last 5 years	View Document

3.3 Research Publications and Awards

3.3.1 Number of Ph.Ds registered per eligible teacher during the last five years

Response: 0

3.3.1.1 How many Ph.Ds registered per eligible teacher within last five years

3.3.1.2 Number of teachers recognized as guides during the last five years

Response: 1

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
Any additional information	View Document

3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 0.45

3.3.2.1 Number of research papers in the Journals notified on UGC website during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
21	22	9	5	8

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document

3.3.3 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: 0.12

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

2020-21	2019-20	2018-19	2017-18	2016-17
8	5	0	1	3

File Description	Document
List books and chapters edited volumes/ books published	View Document
Any additional information	View Document

3.4 Extension Activities

3.4.1 Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.

Response:

Jawaharlal College of Engineering and Technology organizes and participates in various extension activities with a dual objective to not only expose the students to a variety of social issues, but also to contribute to the community and build community involvement among students. NCC and NSS units of the institute participate in various NCC and NSS activities, including camps, Swachh Bharat initiatives, blood donation camps, community health survey and awareness programmes on AIDS prevention, etc. Student participation is high in events like International Yoga Day, World Cancer Day, Anti-drug day which take place in collaboration with other agencies and NGOs to spread awareness. Through participating in International Yoga Day, students become global stakeholders in ensuring the well-being of both their body and mind. World Cancer Day offers an opportunity to celebrate and recognize the collaborative efforts of stakeholders across the health care landscape to address the growing burden of cancer. Anti-drug addiction day is celebrated in India in order to raise awareness about drug addiction and drug abuse among the students.

We act as an environment conscience and encourage the community to take action by launching programs such as Save Our Lakes and rivers, a tree plantation drive in collaboration with Council for Green Revolution, and introducing initiatives to save our lakes and rivers. Blood donation camps in the Institute area regular feature (twice a year) whereby students and staff donate blood for the cause. The camps facilitate blood drawn up to 90-100 units which is sent to Palakkad district hospital blood bank of Kerala Government. We are associating with project management unit- Rebuild Kerala initiative of local self-government department during December 2019 to February 2020. Rebuild Kerala is an initiative for rebuilding the flood affected roads of Kerala. Our contributions in mapping work done for Mapathon Keralam in Urban local bodies is a wonderful initiative to the society during 2021. The institute also initiated in Unnat Bharat Abhiyan which is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an Inclusive India.

Extension activities through Professional bodies like IEEE, IE provides better ideas and contributions for development of society. Agira is a programme conducted by IEEE SB JCET and 93 students from different parts of Kerala and attended the programme on Solar Energy and its applications. The institute not only works on the students of JCET and trains the other participants to propagate the message strongly at the state and national level.

File Description	Document
Upload any additional information	View Document

3.4.2 Number of awards and recognitions received for extension activities from government/ government recognised bodies during the last five years

Response: 15

3.4.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
13	1	0	0	1

File Description	Document
Number of awards for extension activities in last 5 year	View Document
e-copy of the award letters	View Document

3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 72

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

2020-21	2019-20	2018-19	2017-18	2016-17
18	17	16	14	7

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	View Document

3.4.4 Average percentage of students participating in extension activities at 3.4.3. above during last five years**Response:** 69.48**3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
770	648	785	858	953

File Description	Document
Report of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document

3.5 Collaboration**3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year****Response:** 81**3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year-wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
31	16	9	23	2

File Description	Document
e-copies of related Document	View Document
Details of Collaborative activities with institutions/industries for research, Faculty exchange, Student exchange/ internship	View Document

3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the last five years

Response: 21**3.5.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
13	6	0	0	2

File Description	Document
e-Copies of the MoUs with institution/industry/corporate houses	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	View Document

Criterion 4 - 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.

Response:

In a country where education is held in very high esteem, Jawaharlal College of Engineering & Technology(JCET) dedicated to impart education and develop the student to be a responsible engineer /manager and individual. It is 20.51 acres campus with world class infrastructure and physical facilities which is located in Lakkidi, Palakkad. It is 4 km from Lakkidi Railway station and 500meters from SH . JCET is affiliated to the A.P. J. Abdul Kalam Technological University, Trivandrum, Kerala from the 2015 admissions onwards, and had been affiliated to the University of Calicut, Kozhikode, Kerala from 2008 to 2014 and is approved by the All India Council for Technical Education, (AICTE), New Delhi. It is the First Engineering College in Kerala to introduce Aeronautical Engineering, Technology Business Incubator(TBI) in Palakkad district, Powered by Government of India and NSTEDB, with fund of 20 Crore to support entrepreneurship and budding startups, Value added courses and finishing school concept with certification. Apart from highly competent and devoted faculty, excellent infrastructure and teaching aids JCET with its enchanting and spectacular topography, where environmental friendly practices and education combine to promote sustainable and eco-friendly campus. The Institute has adequate infrastructure with sufficient classrooms, Tutorial Rooms, Smart-Class Rooms ,Drawing hall, seminar-halls , various department laboratories, library with ILMS, and 65 Mbps internet facility including Wi-Fi,open Auditorium, Rest Rooms, Staff cabins, HOD cabins attached with Office and Department Library.

The fully metal roads and pass ways inside the campus for the convenient travelling of the staff & students. The New block consists of the office administration that includes the Principal's and Management meeting rooms. All six departments, namely, Civil Engineering, Mechanical Engineering, Aeronautical Engineering, Computer Science And engineering, and Electronics and Communication Engineering and Management in the New Block. The academic blocks consist of spacious class rooms with proper ventilation, lighting and thermal comfort are provided with ergonomic seating. The Institute has adequate Computer Software, Computer Hardware besides Other related Computer equipment are available for the benefit of the student community. The central library is spread over a built area of 11040 sqft. with a fine collection of 29327 volumes and 12070 titles. The digital library is equipped with desktop computers with uninterrupted Wi-Fi & LAN connection for fast and seamless access of internet. The library reading space can accommodate 230students, Koha software package helps to manage the library fuctions. There are 6 seminar halls used by different departments for the purpose of conducting guest lectures, seminars and other departmental activities. All seminar halls have enough seating capacity with white boards, stage, podium and public addressing system with internet facility. All laboratories are fully equipped with latest equipment that helps them become more confident about their knowledge and skills and learn executing practical applications of technologies.

OTHER FACILITIES:

- Separate Rooms Are Provided To NCC, NSS
- Cafeteria And Canteen Facility
- Coolers Provided In Each Floor

- Two Power Generators Coupled With KSEB For Uninterrupted Power Generation.
- I E D C (Innovation And Entrepreneurship Development Centre)
- Board Rooms
- Medical Facility
- Transportation Facility

File Description	Document
Upload any additional information	View Document

4.1.2 The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

Response:

4.1.2.SPORTS,GAMES, GYM, CULTURAL ACTIVITY,YOGAetc..

Jawaharlal College Of Engineering & Technology (JCET) has the best facilities for nurturing sports, games (indoor/outdoor), gymnasium, yoga and cultural activities. All sports activities are streamlined, monitored and guided by the physical education department of the college. JCET has got a Sports and Physical Education department and sports club for improving skills of students in sports and games. The institution provides adequate amenities for ensuring physical education activities to keep the students physically fit and healthy. Full time qualified physical directors and trainers were appointed to look after the day- to- day games and sports activities of the institution. Students are motivated to take part in various National, State, University and Inter-college level sports activities. JCET encourages and provides facility for students to participate in various extracurricular activities in order to take care of physical wellbeing and provide entertainment outlet. A team of faculty members and students are involved in cultural, sports and extracurricular activities of the college. Intra –college and inter –college games and sports competitions are organized every year for students. Students are specially trained for participation in Zonal and Inter – Zonal.

GYMNASIUM

A gym is functioning at the campus under the guidance of physical education department where girls students also given opportunity to participate. In order to improve the mind-set, physique and the attitude, gym aids students to keep the body fit and keeps mental agility properly. For all-round development of the students, there is fully equipped gym - fitness zone containing all modern equipment. The area (comprising nearly 100 sq. meters) has a range of equipment like dumb bells, Steering plates, Biceps Steering plates, skipping ropes. Other equipment include Hyper Extension, Fore Arm Extension, Leverage squat/calf raise machine, Bicep cart, fore Arm extension, Pull up stand, Bench press, Abs machine etc.

INDOOR & OUTDOOR GAMES

The institute has well maintained playground to accommodate, badminton court, football ground, cricket ground, Kabaddi court, volleyball ground and our students have bagged good winning records at inter –collegiate and Zonal levels. The indoor games like table tennis, carroms, chess etc. are conducted in exclusive sports room in the new block

YOGA

The institute conducts various programs in order to relieve the tension of staff and students. The classes are conducted to improve concentration and physical fitness by attending yoga classes, meditation, pranayama and yoga therapy.

INDOOR AUDITORIUM

The institution has an open auditorium with a seating capacity of 1000. The auditorium is used for conducting co-curricular and extracurricular activities in the institution. It is used for conducting NSS & NCC activities, cultural events and co-curricular activities. To broaden the horizons of the students, they are encouraged to participate several inter-collegiate events.

CULTURAL ACTIVITIES

JCET also promotes cultural activities through its cultural fest named as "MALHAR" in every year with various conventional and modern types of arts form. Students are getting opportunity to showcase their talents through the celebration of festivals and commemorative days like Onam, Christmas, Independence Day, and other national festivals

File Description	Document
Upload any additional information	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

Response: 87.18

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 34

File Description	Document
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View Document
Upload any additional information	View Document

4.1.4 Average percentage of expenditure, excluding salary for infrastructure augmentation during last five years(INR in Lakhs)

Response: 10.05

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
123.26	22.95	4.46	7.08	105.26

File Description	Document
Upload Details of budget allocation, excluding salary during the last five years (Data Template)	View Document
Upload audited utilization statements	View Document

4.2 Library as a Learning Resource

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

Response:

Library being the heart of an academic and learning system is located in 3 floors (first, second and third accordingly) and is easily accessible by one and all. The mission of the library to facilitate creation of additional knowledge through acquisition, organisation and dissemination of knowledge resources and providing for value added services. It remains open 12 hrs. in a day (8:00 am to 8:00 pm) and maintains a core collection of 29337 volumes. The diversity of the library collection includes Textbooks, Reference books, General reading English as well as Malayalam books, Competitive Examination Collection (GATE/UPSC/GRE/ AFCAT/CAT/MAT).Back volumes of journals,e-journals,Project reports etc.

The following systems are in place which makes our Library Automated. [ILMS]

Name of the ILMS Software	Nature of Automation (Fully or Partially)	Version	Academic Year
			2016- 17 onwards

Icampuz.in	Partially			
Koha	Partially	20.11.01.000	2020 -21 onwards	

LIBRARY SOFTWARE – KOHA:

Library functions are automated through the open-source software, Koha (ver.20.11.01.000), an Integrated Library Management Software. It has acquisition, cataloguing, circulation, barcoding, serial modules etc. Online Public Access Catalogue (OPAC) can be checked anywhere. The entry and exit of library users also recorded with the e-gate register.

ICAMPUZ.IN

Icampuz.in is ERP software from M/s. insto technologies pvt. Ltd., Kochi, Kerala. The Library is using Icampuz from 2016 onwards and partially switched to Koha software from November 2020 which is on cloud and OPAC can be accessed from anywhere with their cell phone also.

E-RESOURCES AND DIGITAL LIBRARY:

In addition to subscribed e-resources such as J-gate, Delnet, k-Hub, National Digital Library, link to important and authentic free, open source and public domain resources are also provided. List providing the details of subscribed e-resources displayed in the digital Library, Labs and notice boards of all departments for the awareness of students. Dedicated systems are available in the Library and digital library to access resources. Students are allowed to use personal laptops and mobiles also in the library for academic purpose. Charging points are provided for uninterrupted use. Wi-Fi facility to access library resources, question bank, reprographic, printing and scanning facility also provided.

ABSTRACT OF DIGITAL LIBRARY CONTENTS

Sl. No.	Name of the E - consortium	Total number of e-journals	Total number of eBooks	Total number of e-magazines	Total Number video cl
1	DELNET	1874	10680	----	----
2	k-hUb.in	15079	9387	177	198
3	J-Gate Plus	25000	---	---	----
4	Knimbus: e- Library	10244	9607	----	107
	TOTAL				

5	COLLECTION =	52,197	26,674	177	305
6	National Digital Library	5,80,00,000 (5.8 Crore) Digital contents available in this repository			
7	e-Shodh Sindhu	Negotiated Price List of digital resources available			

File Description	Document
Upload any additional information	View Document

4.2.2 The institution has subscription for the following e-resources

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases
- 6.Remote access to e-resources

Response: A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership, Remote access to library resources, Web interface etc (Data Template)	View Document

4.2.3 Average annual expenditure for purchase of books/e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 8.2

4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e-journals year wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
4.29	7.04	8.22	8.42	13.03

File Description	Document
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the last five years (Data Template)	View Document
Audited statements of accounts	View Document

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

Response: 36.89

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

Response: 360

File Description	Document
Details of library usage by teachers and students	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

The college has exclusive language laboratory attached with audio and video facilities for enhancing students to gain knowledge. Our institution has eight computer laboratories & 350 computers connected through LAN or Wi-Fi connection with more than 295 Mbps internet speed to share & access knowledge resources like NPTEL, MIT resources, YouTube etc. The computers have various operating systems like windows-7 and Ubuntu. Computers have various software packages like Mat lab, Xilinx, AutoCAD, Python Turbo-C, Java, et c., which are necessary for teaching and learning. The area of each computer laboratory is 120 sq. meters minimum. The institute has sufficient number of drawing halls with drawing tables for accessing students. Our institute boasts of huge, commodious Auditoriums Namely Seminar hall, Shastra Hall and Sahithya Hall having a seating capacity of 250 people each to conduct various curricular and co-curricular events. The College ICT facility includes projectors, wireless microphones, sound systems, marker boards, public addressing system, desktop recorder and video recorder with internet facility to conduct lectures, seminars, webinars, conferences, guest lectures, and workshops.

The college upgraded the internet speed from 65 Mbps to more than 295 Mbps on 01-08-2021. All the computers of the institution are enabled with LAN connection. The total bandwidth is divided for all the computers through LAN and also through Wi-Fi hotspots. Thirty Wi-Fi access points have

been installed at various places. We have totally 350 computers with configuration of Intel i3 / 2.40GHZ /4GB RAM/128 GB SSD/ Intel Onboard E'Net. All the staff members are having unique Jawaharlal domain username and password for storing their data. Institute frequently updates all the open source software like Scilab, GCC, maxima, etc., as per AICTE guidelines. College ICT facilities like LCD projector, desktop recorder, mics, audio systems, etc., are updated frequently. The scanners, printers, photocopier (Xerox) facility is available for students and faculty members. IT infrastructure facilities are audited every year and internal audit report is prepared to include the amount required to updated IT facilities in the next academic year budget. JCET has well equipped and maintained Air Conditioned Laboratories powered with efficiently configured computers that are equipped with various softwares and other tools relevant for the syllabus.

Internet, Wi-Fi, and Laboratory facilities are available for staff and students round the clock. The Institute is facilitated with all the programming languages like Python, C, C++, Java, HTML, PHP, etc. are provided under the eight labs namely ADS Lab, Systems Lab, Network Lab, Programming Lab, Language / Internet Lab, Cad & Analysis Lab, Computer Aided Civil Engg Lab, Project Lab along with that students use for their project and seminar related works.

File Description	Document
Upload any additional information	View Document

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

Response: 2:1

File Description	Document
Upload any additional information	View Document
Student – computer ratio	View Document

4.3.3 Bandwidth of internet connection in the Institution

Response: A. 750 MBPS

File Description	Document
Upload any additional Information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years(INR in Lakhs)

Response: 20.37**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)**

2020-21	2019-20	2018-19	2017-18	2016-17
106.63	107.09	114.68	128.79	137.26

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	View Document
Audited statements of accounts	View Document

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.**Response:****MAINTENANCE POLICY**

The campus holds well established standard systems and procedures for maintaining the physical, academic and support facilities that are governed by the supervision of faculty in-charges in college level. They ensure the various aspects of utilization and maintenance of the physical, academic and support facilities such as maintenance of buildings, laboratories, classrooms, library, computers, etc. To maintain a green campus with trees and plants all around and to make campus litter and plastic free with dust bins provided at strategic locations. The proper function of equipment in all laboratories is ensured in every semester by the lab technicians and minor repairs are carried out by them as and when they are needed.

First aid kits are kept in all major laboratories and department to meet any eventuality. Fire extinguishers of ISI mark of adequate capacity and numbers are provided in eye catching spots in the college buildings especially in all laboratories. Fire extinguishers are well maintained and checked periodically and refill before the due date. The maintenance of generators, UPS, CCTV, building appearance (painting) etc. are done periodically. A housekeeping team is allotted to maintain a clean campus environment.

LABORATORY GENERAL MAINTENANCE

- Lab stock register is maintained and Stock verification is updated by the lab faculty in-charge, technicians and approved by HoD.
- Old and outdated equipment, chemicals and instruments are discarded by standard

procedure and proper functioning is ensured.

- Breakage or repair if any, are reported to the HoD and Lab faculty in-charge and appropriate measures are to be taken.
- List of the experiments are displayed in the laboratories for the reference of students.
- Students are given proper instructions to work with the equipment efficiently and should wear the prescribed uniform and shoes to ensure the safety.

LIBRARY MAINTENANCE

- The maintenance of the library is done by the library staff.
- A utilization register is used for maintaining the library usage
- The library staff will make the entry of the issue, return, and renewal of books in library using KOHA software.
- The library stock is periodically maintained
- As per the Head of the Department's recommendation, the new technical books are also updated in the library periodically.
- Library staff provides the login for access to OPAC or any e-journals.
- Digital library is provided to access the NPTEL course materials, IEEE papers etc.

BUS MAINTENANCE

- The college has a fleet of buses which is provided to students and staff.
- Vehicles are periodically greased for smooth running
- The driver checks the tyre pressure at the start.
- The driver checks the fuel level of the bus at the start.

SPORTS MAINTENANCE

Sports are usually conducted both Indoor and Outdoor Games. Equipment, Courts, Playground and Gym are maintained by Physical Education Faculty of the college.

- The damaged Sports materials are immediately replaced with new ones.

- The grounds are maintained at regular intervals.
- The grounds are marked periodically.
- The gym equipment is cleaned and lubricated properly.
- The sports equipment is checked and serviced at regular intervals by Physical Education Faculty.

SEWAGE WATER TREATMENT PLANT

The STP with a capacity of 1.2 lakh liters consists of all process units which help to minimize the chemical and biological load of domestic sewage and can be reused for gardening and irrigation purpose. Domestic sewage generated from the campus is passed through the screening chambers [coarse and fine screen] and then collected in the Collection tank. In this process the Hypochlorite and UV treatment is used for disinfection and filtered water is used for Gardening or Toilet flushing and by-product is collected in Sludge Drying beds for further degradation into organic manure which can be used for gardening purpose.

The maintenance of laboratories for various departments is furnished below.

COMPUTER LABORATORIES

- Set up weekly updates or automatic updates for computer software
- All the PCs and related equipment like printers, scanners, etc. are backed by UPS
- Installation of antivirus program on the computers
- Hard disc clean-up and defragmentation utilities regularly
- All computers are checked for applications at the start of semester
- Frequent maintenance of computers, AC, Printer toner filling and other equipment for every 6 months or as when required.
- Software license renewal is done as per the license period.

CIVIL ENGINEERING

All the labs and related workshops in the department are very well equipped with all the equipment /instruments/machines required to conduct every experiment given in the curriculum

- License renewal is done for the software's as per the license period in CAD lab.
- The Equipment's are tested for its working condition in starting and mid of the

academic year.

ELECTRONICS AND COMMUNICATION ENGINEERING

- Regular checking of Meters, Cathode Ray Oscilloscope (CRO) and Function Generator (FG) are being carried out and calibration is also done.
- Linear & Digital ICs are checked using IC Testers and faulty components are replaced.
- Regular checking of Dual Power Supply, Digital Storage Oscilloscope (DSO), FG, Digital Trainer Kit, Linear and Digital Power Supply will be done for every month.
- Regular checking of ICs in trainer kits 8085, 8086 and 8051 are done for every two weeks.

AERONAUTICAL ENGINEERING & MECHANICAL ENGINEERING

- Fire extinguisher (CO2)-for B and C Type (Both fire and electrical fire)- 5 kg Capacity.
- First Aid Box is kept in each lab.
- Instructions are given to students to wear Lab coats, shoes hand gloves as per needs of experiments.
- Students are instructed maintain safe distance from equipment.

File Description	Document
Upload any additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years

Response: 24.64

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
194	238	271	330	458

File Description	Document
upload self attested letter with the list of students sanctioned scholarship	View Document
Upload any additional information Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years (Data Template)	View Document

5.1.2 Average percentage of students benefitted by scholarships, freeships etc. provided by the institution / non- government agencies during the last five years

Response: 12.28

5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
237	110	116	150	16

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freeships institution / non- government agencies in last 5 years (Date Template)	View Document

5.1.3 Capacity building and skills enhancement initiatives taken by the institution include the following

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

File Description	Document
Details of capability building and skills enhancement initiatives (Data Template)	View Document
Any additional information	View Document
Link to Institutional website	View Document

5.1.4 Average percentage of students benefitted by guidance for competitive examinations and career counselling offered by the Institution during the last five years

Response: 54.97

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

2020-21	2019-20	2018-19	2017-18	2016-17
424	495	670	765	963

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document
Any additional information	View Document

5.1.5 The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

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

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document

5.2 Student Progression

5.2.1 Average percentage of placement of outgoing students during the last five years

Response: 50.54

5.2.1.1 Number of outgoing students placed year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
107	139	113	310	289

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years (Data Template)	View Document

5.2.2 Average percentage of students progressing to higher education during the last five years

Response: 22.28

5.2.2.1 Number of outgoing student progression to higher education during last five years

Response: 41

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education (Data Template)	View Document

5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 40

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

2020-21	2019-20	2018-19	2017-18	2016-17
4	0	0	0	1

5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
4	0	0	0	1

File Description	Document
Upload supporting data for the same	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years (Data Template)	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.

Response: 14

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) year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
0	1	5	5	3

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national/international level during the last five year	View Document
e-copies of award letters and certificates	View Document

5.3.2 Institution facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities following duly established processes and norms (student council, students representation on various bodies)

Response:

Anti-ragging committee:

Anti-Ragging Committee will be the supervisory and advisory committee in preserving a Culture of Ragging Free Environment in the College Campus. The main objective of this committee are to create awareness among the students and sensitize them on the adverse effect of ragging. The committee also ensures that any ragging related events does not take place in the campus and report any suspicious activities to the authorities.

Class committee and course committee

Department wise class committee meetings and subject wise course committee meetings are conducted three times in every semester to evaluate the conduct of classes, completion of syllabus, progress of portions and internal exams. The committee consists of four to five students, staff advisor, faculties handling the classes and head of the department. Students suggestions and opinions

are recorded and remedial actions are taken if necessary.

Students Grievance and Redressal cell:

The college has a well-organized student grievance and redressal cell, which hold at least two meetings

each semester and collect student complaints from representatives of student committees, and corrective action is taken appropriately.

Department Association:

Each department have student's association for organizing various technical events.

Anti-Sexual Harassment Cell

The anti-sexual harassment cell is constituted to ensure gender equality and grievances of female students. The students register their complaints, if any, through their representatives and remedial

measures are taken. The committee meets twice every semester and addresses the needs of students through student feedbacks.

Hostel and canteen committee:

For the benefit of students in the hostels, we have a hostel and a canteen committee with representation of students and faculty members. Meetings are frequently held to ensure the smooth operation of the hostel and canteen the facilities provided by the institution.

Arts and Sports Committee

Students take part in various co-curricular and extracurricular activities like arts, sports and technical events organized inside and outside the institution. The physical education department looks after the athletics and sports training of students. Apart from this the arts and sports committee consisting of student and faculty members organizes meetings and addresses issues related to sports and cultural activities. The committee along with physical education department undertakes the selection of students for various sports and cultural activities to represent the institution.

The college has a well-equipped gym facility where students work on their physical fitness. The physical fitness of students is taken care of by the physical education department and sports committee.

Social and technical committees

The NSS imparts social and moral responsibilities to students and also help in improving the personality development. NSS along with NCC active in organizing several extension activities like Tree Plantations, Blood Donation camps, Swach Bharat campaign etc. The college chapters of IEEE and IE organizes various technical activities and helps to improve the technical knowledge of students and also provides students an opportunity to interact with Engineers world over. The ISTE student chapter provides guidance and training to students to develop better learning skills and personality. The ICT Academy of Kerala (ICTAK) of which our institution is a member, supports the students, staff and faculty members with quality training resources, certifications and industry immersions on emerging technologies and thereby enabling them to reach their academic and career potential.

File Description	Document
Upload any additional information	View Document

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

Response: 25.2

5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution participated year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
33	30	35	16	12

File Description	Document
Report of the event	View Document
Number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions (Data Template)	View Document

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 main aim in the creation of alumni association of JCET is to provide valuable services to the alumni who ultimately facilitates to improve the status of the organization. It provides a platform in establishing a connection among the alumnus, management, faculty and students. JCET alumni association has about three thousand active contributors, with the aim to unite the alumnus of Jawaharlal College of Engineering and Technology.

AAJCET caters to the institutional development through the following initiatives

- **Student-Alumni bonding**

The alumni members helped the students who had multiple offers to select their final choice. Students who were unable to get a job offer via placement drive were referred by alumni network for job interviews

Student's questions regarding post-graduation are also addressed by connecting them with alumni who

took similar/same course in that particular subject/university.

◦ **Alumni talks/ experience sharing**

It's a global platform to share their experience and keep a healthy relationship with each alumni at all stages in their life. The alumni meet with the students whenever they come to the campus and motivates them. Alumni who were selected in civil services and other top posts frequently interacts with students and share their experience.

◦ **Alumni reunion for fostering the relationship**

The AAJCET conducts alumni meetings inside and outside the campus every year to keep them constantly in touch with each other. With a view to make the alumni affiliation lively, alumni groups are there in virtual social medias like fb and WhatsApp. They have got WhatsApp groups for each batch and there are representatives for every batch. These social networks offer a platform for alumni to live in contact with each other. As the alumni members are spread over the world, get-togethers are carried out region wise, primarily based on the convenience of the individuals of that region.

◦ **Members of institutional committees**

The alumni are members in various committees like internal quality assurance cell (IQAC) and contributes to maintaining and improving the quality of services provided by the institution.

Services by alumni

JCET alumni network connects students who have got placements in multiple companies to alumni members in those companies to evaluate their opportunities. Various alumnus has donated books and other study materials to the departments and library.

◦ **Prizes and awards**

The alumni association frequently render financial aid and scholarships to deserving students. Awards, incentives or prizes

AIMS AND OBJECTIVES OF ALUMNI ASSOCIATION(AAJCET)

- To facilitate interaction between Alumni and departments of Jawaharlal College of Engineering and Technology.
- Promote research and academic activities.
- Organize social and cultural activities that bring together Alumni, Current scholars and the fraternity of JCET.
- To encourage and appreciate academic and other outstanding achievements of the Departments/Faculty.
- To establish endowments and scholarships.
- To award incentives or prizes for outstanding contributions of scholars.
- To aid in improving and updating academics using their experience and knowledge.
- Aid fresh graduates and postgraduates in finding job openings and entrepreneurship opportunities by coordinating with placement cell and other academic works.

- To conduct health awareness programs.
- The association shall be nonprofit sharing and no member shall have any proprietary right or interest in the assets and liabilities of the association.

File Description	Document
Upload any additional information	View Document

5.4.2 Alumni contribution during the last five years (INR in lakhs)

Response: A. ? 5 Lakhs

File Description	Document
Upload any additional information	View Document

Criterion 6 - 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

Response:

Vision of the Institution

Emerge as a centre of excellence for professional education to produce high quality engineers and entrepreneurs for the development of the region and the Nation.

Mission of the Institution

- To become an ultimate destination for acquiring latest and advanced knowledge in the multidisciplinary domains.
- To provide high quality education in engineering and technology through innovative teaching-learning practices, research and consultancy, embedded with professional ethics.
- To promote intellectual curiosity and thirst for acquiring knowledge through outcome based education.
- To have partnership with industry and reputed institutions to enhance the employability skills of the students and pedagogical pursuits.
- To leverage technologies to solve the real life societal problems through community services.

In line with the institute's vision and mission and to contribute towards the achievement of them, all the departments have framed their own vision and mission relevant to their domain and operation.

The Jawaharlal college of Engineering and Technology has the state-of-the-art infrastructural facilities in both academic and non-academic areas to nurture its students towards holistic transformation to a fully competent and professional engineers who can take up the global challenges.

By making use of the competent and qualified technical manpower with a true blend of education-industry-defence retirees who have diverse experience and leadership qualities, the institution imparts fruitful skills and knowledge to its students for decades.

By promoting cultural, co-curricular and extracurricular apart from academics, the institution strives to mould true citizens who can excel in professional, administrative and research areas. Institution's commitment to serve the nation and the society are reflected by the existence of full-fledged NCC and NSS units with active involvement in all spheres of life in campus and the local society.

Excellence in professional education and research through social, commercial and environmental perspectives are made possible through the contributions of well-set IQAC, Research cell, Academic committees, grievance redressal and ethics committee, etc.

The strategic action plans raised by different committees, that are headed by the faculty members are regularly submitted to the management for implementation.

Regular feedback is obtained from all the stakeholders to refine the missions of the institution and to modify its program educational objectives.

The top management provides a conducive environment to the faculty to enhance their academic potential. The teachers play active part in various academic committees in the institution level.

Also, the faculty members have opportunities to hold different responsibilities at the institution level, like:

- IQAC Director and coordinator
- Placement cell convener
- Icampuz coordinator
- Admission committee convener
- R&D coordinator
- AISHE and Vidyanjali HE convener
- ISO, NAAC and NBA coordinator
- University examination coordinator
- Professional body convener
- Alumni association convener
- NSS Programme officer
- NCC Associated officer
- Student activities convener
- Grievance redressal cell and woman empowerment cell convener
- PTA secretary
- Staff advisor

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

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

Response:

The institution has set up a well organized and structured IQAC headed by the Principal and a senior faculty member as the Director. A quality policy has been made in tune with the mission statements of the institution. The quality policies have been evolved through the feedback system and the procedure as shown in the figure from various committees including all the stake holders of the institution.

The institution has set up a well organized and structured IQAC headed by the Principal and a senior faculty member as the Director. A quality policy has been made in tune with the mission statements of the institution. The quality policies have been evolved through the feedback system and the procedure as shown in the figure from various committees including all the stake holders of the institution.



Three departments of the institution have been accredited by the NBA recently and the Institution has clearly stated the action plan for its holistic growth.

The top executives of the trust and the governing body members maintain constant interactions with the Principal and are fully involved in the developmental activities of the institution and day to day functioning of the college.

Principal holds regular meetings with the heads of the departments and other academic and administrative committees to take decisions for the implementation and monitoring of all regular and developmental activities of the college.

College has an active council which is constituted with academic advisor, Principal and heads of all the departments and other senior faculty members.

At the department level, regular meetings are conducted for discussing academic and administrative matters.

Class wise PTA meetings are conducted at least once in a semester for all classes.



File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

Jawaharlal College of Engineering and Technology (JCET) has prepared a futuristic strategic plan to fulfill the holistic development of the student community. JCET believes that a strategic planning process is a chance to assess changes in student needs, institutional focus, and community expectations. The process includes soliciting inputs from across the campus and local communities.



Internal Quality Assurance Cell (IQAC) of the college has been striving to take initiatives to obtain inputs from all the stakeholders viz, trust, Principal, faculty, administrative staff, students and parents. The expectations of the stakeholders, trust policies, vision, mission and quality policies of the college are also considered as a foundation for formulation of the perspective plan. Since the finalisation of the plan and its approval by the Board of the Trust, JCET has successfully executed many of those plans out of which some are listed here.

- Curriculum gaps were identified and suitable add-on courses to fill the gaps were timely introduced.
- To make teaching learning process more effective and suiting the present times, ICT tools and smart classrooms have been introduced. Students were encouraged to participate in MOOC courses.
- The E-resources in the library have been strengthened with E-Journals from IEEE and other reputed publishers.
- Faculty members were given financial support to attend workshop/conferences/FDP thereby achieving a wider exposure to engineering fraternity.
- Every year, a schedule of training programs for students of all years/branches was formulated to enhance their skill development and employability prospects.
- Energy consciousness and sense of green energy concept have been inculcated among the student community. Student projects on renewable energy have been promoted.
- NSS and NCC activities have been expanded to serve the local society and the community in general and to induce patriotism and sense of responsibility among the student community.
- Placement training programs have been included in the time table right from the second year and the students have been encouraged to take up internship, industrial visits, STTPs and online courses.

The deployment success of the institutional strategic and perspective plans is evident from the status of

three departments being accredited this year by the NBA. The long term growth plan is depicted in the figure shown above.

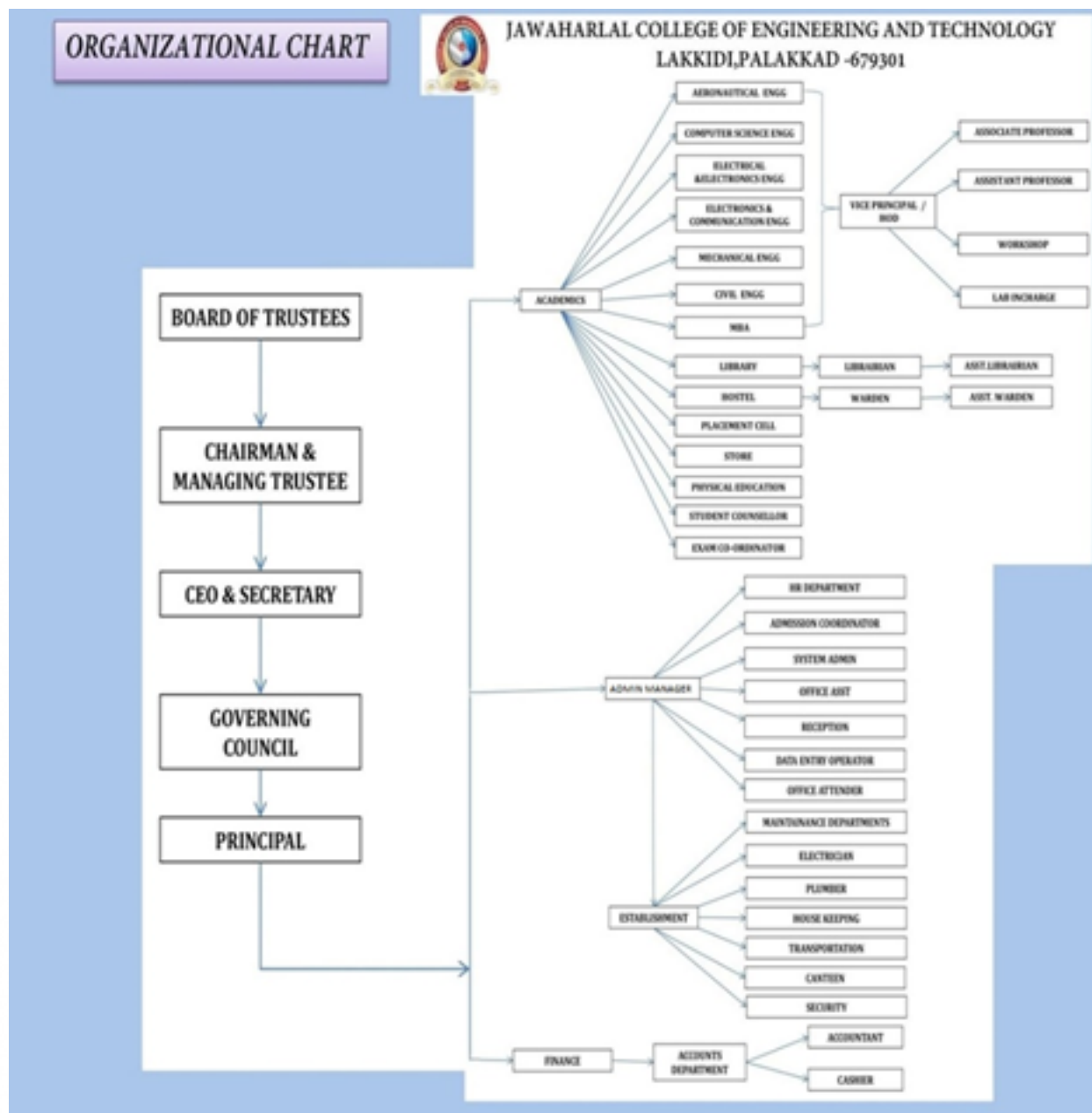
JCET thinks forward to leverage its limited resources to achieve desired outcomes with measures that hold us accountable to its stakeholders.

File Description	Document
Upload any additional information	View Document

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

Response:

Jawaharlal College of Engineering and Technology (JCET) is owned by Nehru colleges of education and charitable trust, established in the year 1968. The trust has more than twenty institutions of higher education located in different parts of the states of Kerala and Tamilnadu. JCET has well defined and decentralized organizational structure with appropriate hierarchy of authority.



Organisational structure of the Institution

The Principal of the College, assisted by several Heads of the departments implement the policies of the trust and the decisions taken by the

governing body. Administrative manager takes care of all non-academic activities of the college including the maintenance, housekeeping, security, transportation and accounts.

The overall functioning of the college is governed by the **Governing Council (GC)** headed by the trustees. Regular Governing Council meetings are held in the Institute and decisions are taken on various recommendations and suggestions. The feedback collected from all the stakeholders is used for the value additions in the day-to-day operations and activities of the college.

GOVERNING COUNCIL

Sl NO	Name	Position In Governing Council	
1	Adv. Dr. P. Krishnadas Chairman & Managing Trustee, Nehru College of Educational and Charitable Trust	Chairman	
2	Dr. P. Krishnakumar CEO & Secretary, Nehru College of Educational and Charitable Trust	Member	
3	Dr. P. Thulasi, Trustee, Nehru College of Educational and Charitable Trust	Member	
45	Dr. P K Krishnan Namboothiri Associate Professor & Head in Amritha University, Coimbatore	Member	
5	Mr. Sajeev Kumar Managing Director, SARK Cables Pvt. Ltd. Kanjikode, Kerala	Member - Industry	
6	AICTE Nominee	Member	
7	KTU Nominee	Member	
8	Director of Technical Education Kerala – Nominee	Govt. of Member	
9	Dr.A.P Jayaram, Retd. Nuclear Scientist , BARC	Member	
10	Dr. N. Gunasekaran Principal, JCET	Secretary	
11	Dr. Prof. K Umesha Professor and H.o.D, JCET	Member	

12	Mr. Prajeesh Ra Asst. Professor, AERO, JCET	Member Faculty	
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Appointment, service rules and Procedures:

The Institute has a set of well-established rules, policies and regulations under the frame work of AICTE, Govt. of Kerala and the university, which are approved by the Governing Council. Qualified, experienced and competent persons are appointed through well-defined procedure as explained in the HR manual. Vacancies are advertised in leading national news papers. The Staff Selection Committee comprises the Chairman, CEO, Academic advisor, the Principal and the HoD of the concerned department. The candidates are tested for their proficiency and aptitude towards teaching by the interview board. Based on their performance in the interview and the academic merit, a rank list is prepared and the candidates are selected. The appointments are approved by the management committee during its regular meetings. The selected candidates are appointed initially for a probation period for one year. The Management ratifies the appointment based on the appraisal report approved by the Principal.

File Description	Document
Upload any additional information	View Document
Link to Organogram of the Institution webpage	View Document

6.2.3 Implementation of e-governance in areas of operation

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	View Document
ERP (Enterprise Resource Planning) Document	View Document
Details of implementation of e-governance in areas of operation, Administration etc	View Document
Any additional information	View Document

6.3 Faculty Empowerment Strategies**6.3.1 The institution has effective welfare measures for teaching and non-teaching staff**

Response:

Jawaharlal college of engineering and technology extends ample welfare measures to all its employees in the campus. Employees are well motivated by providing adequate facilities and by creating safe, secure and comfortable working environment. Some of the major welfare measures taken by the management for its teaching and non-teaching staff are as follows:

List of Welfare measures (for teaching staff)

PK DAS Hospital Privilege Card, Health Policy Scheme, Chikitsa

All employees who have been working for more than one year are provided with this accident insurance scheme Rs.50,000, for teaching staff, by Universal Sompo General Insurance Company, Coimbatore.

Financial support provided to the faculty members for publishing research papers in international and national journals are, Rs. 5000 and Rs. 1500, respectively.

Financial support of up to Rs. 5000 is offered to faculty members for publishing books with reputed publishers. As individual authors, they get Rs. 5000 and as a coauthor, Rs 1500 is provided.

All faculty members are eligible for casual leaves, compensatory leave, on Duty leave, vacation leave, emergency leave, maternity leave, annual leave, and medical leave.

For Non-teaching staff

All employees who have been working for more than one year are provided with this accident insurance scheme Rs.50,000, for teaching staff, by Universal Sompo General Insurance Company, Coimbatore

All non teaching staff is eligible for casual leaves, compensatory leave, OD, vacation leave, emergency leave, maternity leave, annual leave, medical leave, and ESI.

File Description	Document
Upload any additional information	View Document

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

Response: 32.87

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

2020-21	2019-20	2018-19	2017-18	2016-17
10	42	51	71	74

File Description	Document
Upload any additional information	View Document
Details of teachers provided with financial support to attend conference, workshops etc during the last five years	View Document

6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years**Response:** 13.4**6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
15	15	12	13	12

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres)	View Document
Reports of Academic Staff College or similar centers	View Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).**Response:** 55.03

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

2020-21	2019-20	2018-19	2017-18	2016-17
60	72	77	86	93

File Description	Document
Upload any additional information	View Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View Document
IQAC report summary	View Document
Details of teachers attending professional development programmes during the last five years	View Document

6.3.5 Institutions Performance Appraisal System for teaching and non-teaching staff**Response:**

The performance review documents are regularly and frequently updated for each and every employee of the institution. Annual performance Index is calculated by every faculty member based on the academic performance in terms of results, FDPs attended/ organized, publications, project guidance, books written, consultancy, research funds received and academic results. This assessment report format is different for academics and administration. The following system of appraisal is followed: Self-assessment report is submitted by all teachers and lab. Staff and administrative staff including those on contract on a monthly basis.

- Academic Performance Index is calculated by all faculty members annually and documented in the HR profile.
- Performance appraisal is evaluated based on the expected performance described in the job descriptions.
- Staff members, after their probation period are eligible for increments prescribed at the end of 12 months in service in the institution. The increments will be in effect at the beginning of every academic year, ie., June.
- Additional increments are awarded to staff members based on their contributions and results achieved on selection by the management.

Annual staff performance appraisal systems consist of

Students feedback

Appraisal by Head of the Department

Appraisal by Head of the Institution

All the staff members are required to submit their self-evaluation report at the end of every academic year in the prescribed format.

The team consisting of the head of the department, principal, HR head and administration manager will discuss the findings of the appraisal in an interview with each employee. The research is considered as a vital part of the academics and the faculty members are required to improve their resume by doing the following:

Paper Publication- Journal/Conference

Patent-Apply/Sanction

Testing/Consultancy

conduct/coordinate conferences/seminars/FDPs/Hackathons/Workshops/any similar event

PC.

An employee who has successfully completed his/her probation period and whose assessment is satisfactory will be permanently appointed by the Chairman & Managing Trustee/Management and written confirmation order will be issued to him/her.

File Description	Document
Upload any additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

- Many reforms were brought in the financial administration of the institution.
- The financial management of the institution is monitored by the Management council. However, all the budgetary approvals are given by the BOG after necessary consultations.
- A committee headed by the Principal and representatives of the Management, teaching staff and administrative staff will be sought budgetary requirements from various departments and cells.
- The BOG meets at least once in six months and sets the priorities of the institution and allocates resources.
- The college has entrusted a senior faculty of the college with the responsibility of auditing the accounts of the institution internally.
- At the beginning of the academic year the annual budgets are prepared, reviewed and approved by the BOG.
- The external auditing is done by a Chartered Accountant, specially designated for this purpose.

- External audit is also carried out in an elaborate way on a quarterly basis.
- The institute regularly follows the Internal & external financial audit system.

Role of an Auditor in Audit of Educational Institutions:

- The institutional accounts are audited regularly by both Internal and statutory audits.
- Qualified Internal Auditors have been permanently appointed and a team of staff under them do a thorough check and verification of all vouchers of the transactions that are carried out in each financial year.
- The internal auditor shall evaluate and confirm the effectiveness of internal check system of accounting of the receipts.
- The internal auditor should verify that the fees are collected from all the students and if there is any concession, the same is granted by a person who is so authorized.
- The internal auditor should also ensure that the fees received in advance and fees receivable are properly accounted and irrecoverable fees are written-off under the authorization of the appropriate person
- So far there have been no major findings / objections. Minor errors of omissions and commissions when pointed out by the audit team are immediately corrected / rectified and precautionary steps are taken to avoid recurrence of such errors in future.
- The auditor verifies the income and expenditure details of the college as per the balance sheet and provisions stipulated by law.
- JCET maintains all the records of the accounts properly and submits them to the auditors at the time of the audit

File Description	Document
Upload any additional information	View Document

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

Response: 0

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

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the last five years	View Document

6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

The Institution always monitors the effective and efficient use of available financial resources for the infrastructure development to support teaching learning process. Financial discipline is ensured through a proper auditing process by a chartered account. JCET is a self-financed private institution run by Nehru Charitable trust, coimbatore. In addition, this trust own eleven educational institutions With around 12 years of Standing this institution require fewer external funds. However, in case of any pressing requirement of funds a mutual arrangement of funds transfer between the organizations is arranged to meet the demand.

Since it is a self-financing Institution, Tuition Fee is the main source of Income. These funds are utilized for all Recurring and Non-Recurring Expenditure. The Institution has a well-defined mechanism to monitor effective utilization of available financial resources for the development of the Infrastructure to augment Academic processes needs. All the Administrative and Academic Heads along with coordinators of different cells (viz., Research & Development cell, Training & Placement cell, Library committee (for the purchase of Books / Journals), Maintenance committee (for Repair & maintenance cost) Software & Internet Charges, Printing & Stationary, Equipment & Consumables, Furniture & Fixtures, NSS Cell) will submit the Budget requirements for the coming academic year before 31st May of every year. The college accounts department prepares an annual budget estimate duly considering the proposals received and also the recommendations of the Principal and Management Committee. During the meetings of HoDs with the Principal, Academic Advisory Committee and finally BOG, scrutiny of the budget is conducted and based on Income and expenditure BoG recommends order of priority for the procurement.

The sponsoring society is the ultimate decision-making authority for fund mobilization and outlay. A better fee structure would have been claimed by the college, but in view of the financial background the sponsoring society is benevolent to consider the request of the surrounding community. AFRC decided the fee structure based on the Income and Expenditure of the Block Period (3 Years). the flowchart of the Institution for funds mobilisation and the optimum utilisation:

? Budgeting

? Scrutiny of the budget requirements

? Assessment of available financial resources

? Allocation of budget by BOG

? Prioritising the needs

? Identification of external funding agencies in case of emergency

? Expenditure by the managing council

File Description	Document
Upload any additional information	View Document

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

Response:

On 28.06.2019 the Internal Quality Assurance Cell (IQAC) was established in the institution with a vision to streamline the quality initiatives of the institution. Earlier to IQAC, Academic Advisory Committee (AAC) used to review the quality initiatives of the institution. Since it is decided to apply for Accreditation by NAAC, several quality initiatives were implemented.

IQAC in its inaugural meeting decided to review all the quality initiatives. The focus area of the IQAC is

- To realise Mission and Vision of the institution.
- Defining the POs
- Institutionalizing the quality policies
- Documenting the quality assuring strategies
- Continuous improvement in the strategies after thoroughly assessing the attainment.
- Redefining the new goals and observing the attainment level.

JCET - IQAC Objectives:

- To develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices
- The Internal Quality Assurance aspects of the college, especially regarding the teaching-learning process has for several years been under the purview of the Academic Committee of the college.

• IQAC was constituted with the following goals

- Communication of information on the various quality parameters of higher education
- Development of quality benchmarks for the various academic and administrative activities of the institution.
- Documentation of the various activities leading to quality improvement.
- Obtaining, analysing and action taken on feedback responses from students, parents, and alumni on quality-related institutional processes.

Various key areas for regular monitoring and documentation by IQAC are

Curriculum analysis and bridging the gaps

- IQAC standardized the existing institutional practices to write the lesson plan and continuously monitoring the schedules
- Assess the gaps in the curriculum and suggesting necessary add-on/certificate/value added courses
- Organization of lectures by prominent speakers in different areas
- Organization of Annual lectures by each department every year
- Organization of Remedial classes and Student counseling sessions

Research and innovation initiatives

- Participation in Innovation and Research funded Projects
- Consultation with various organizations
- Collaboration with Industry and placement meet
- Membership of Board of Studies of eminent Institutes

• Extension activities for the community development

- Imparting patriotism in student community
- Initiating green practices in institution administration
- Inducing environment consciousness
- Optimum utilization and conservation of natural resources

• Effective involvement of Alumni

Improved feedback collection mechanism by a centralized committee with members from all stakeholders

File Description	Document
Upload any additional information	View Document

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

Response:

JCET strongly believe this as its philosophy. Since its inception JCET implemented some quality initiatives in teaching learning policy.

Curriculum delivery: Unlike the routine processes at JCET we conduct class work more interactive. Faculty circulates the teaching plan to the students and students are expected to attend with preparation to have healthy discussion on the topics in the class hours. An Open hour is conducted by the faculty once in every fortnight to allow the students to Present their understanding as a seminar

- Ask questions
- Organize oral quiz
- Conduct some activities
- Involve students to solve some numerical problems.

Research and Innovation:

Students are encouraged to participate in group activities where a task is given and students are working on the theme to derive solutions. Academic projects are so chosen to engage the students to find technical solutions for the dynamic problems of the society.

The aims of the projects are to see that students are working as good members of a team, addressing the problems of the society, particularly the problems of forming community and environment.

Students are given necessary guidance to

Identify problem

To develop the problem statement

Identify the possible solution and pick optimum solution.

Project estimation and financial planning

Convert the project in to a publication.

To strengthen teaching-learning process by initiating innovative teaching-learning practices IQAC resorted to

- Give more emphasis on academic projects, conduct special workshop to faculty members on problem identification.
- Give students access to internet facility to explore the relevant literature
- To conduct more review meetings to assess the understanding levels of the project batch.
- To offer programs like HACKATHON to encourage the students in project-based learning. The IQAC has devised several mechanisms to review the effectiveness of the teaching learning process in the institution. One such measure is the conduct of an academic auditing every year. The audit team visits all departments and units of the college and interacts with everyone collectively and in

person. The performance levels of students in the university examinations are the main agenda in the process. The team cautions the department, in case the results are not up to the expected levels. On the basis of the report of the team, the IQAC adopts appropriate policy changes and revitalizes the academic process. Another initiative of IQAC is to improve the effectiveness of Parent teacher interaction. Reviewing the teaching learning process is the platform of 'Open House' in which both the teachers and parents sit together and discuss the performance, level of students. Once in each semester, the parents are invited to the college for a discussion with the teachers in the presence of the students.

File Description	Document
Upload any additional information	View Document

6.5.3 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
2. Collaborative quality initiatives with other institution(s)
3. Participation in NIRF
4. any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

Response: A. All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Upload details of Quality assurance initiatives of the institution	View Document
Upload any additional information	View Document
Paste web link of Annual reports of Institution	View Document

Criterion 7 - 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 last five years.

Response:

JCET pursues a strong gender equity sensitization since its inception a large number of women faculty members recruited every year and so many girls pursuing their education in JCET indicates the actions implemented for gender equity. Every day, the girl's participation in classroom learning is encouraged and a good number of them have become representatives of the classes. 'Moulding True Citizens' is the motto of NGI and it is vigorously implemented through various sensitization programs. Courses such as Life skills, Constitution of India are part of the curriculum and it is inbuilt for the gender equity. Tutors and Mentors always value the equality in day to day conduct of activities. NCC/NSS are promoting the gender equity in almost in all its activities. Special programs such as "Self Defense Class" are conducted for the students. Mrs Nisha Narayanan ,Asst Professor ECE, is the associate NCC officer. Ms Surabhi , Sr.Lt.Student leader of NCC .Majority of the cadets are girls. Women Development programs are organized for improving the women participation and development.

1.SENSITIZATION PROGRAMS

TOTAL NUMBER OF PROGRAMS IN THE YEAR 2020-2021 : 8

YEAR	TITLE OF THE PROGRAMS	DATE	MALE	FEMALE
	1. YOGA TRAINING FOR WOMEN	JUNE 21	80	50

2020- 2021	2.SEMINAR – WOMEN IN TECHNOLOGY	FEBRUARY 15	75	60
	3. WOMEN'S ENTREPRENEURSHIP WEEK- AS PART OF WOMEN'S DAY	MARCH 08	84	72
	4. WEBINAR ON DIGITAL INVESTIGATION AND CYBER FORENSICS	MARCH 13	70	83
	5. VIRTUAL FEST – CULTURAL FEST	AUGUST 12	92	84
	6. ONLINE TECHNO CULTURAL PROGRAM – SATTVA 2020	AUGUST 20	85	93

Institution shows gender sensitivity in providing facilities such as:

- a) Safety and Security
- b) Counselling
- c) Common Room
- d) Other Facilities

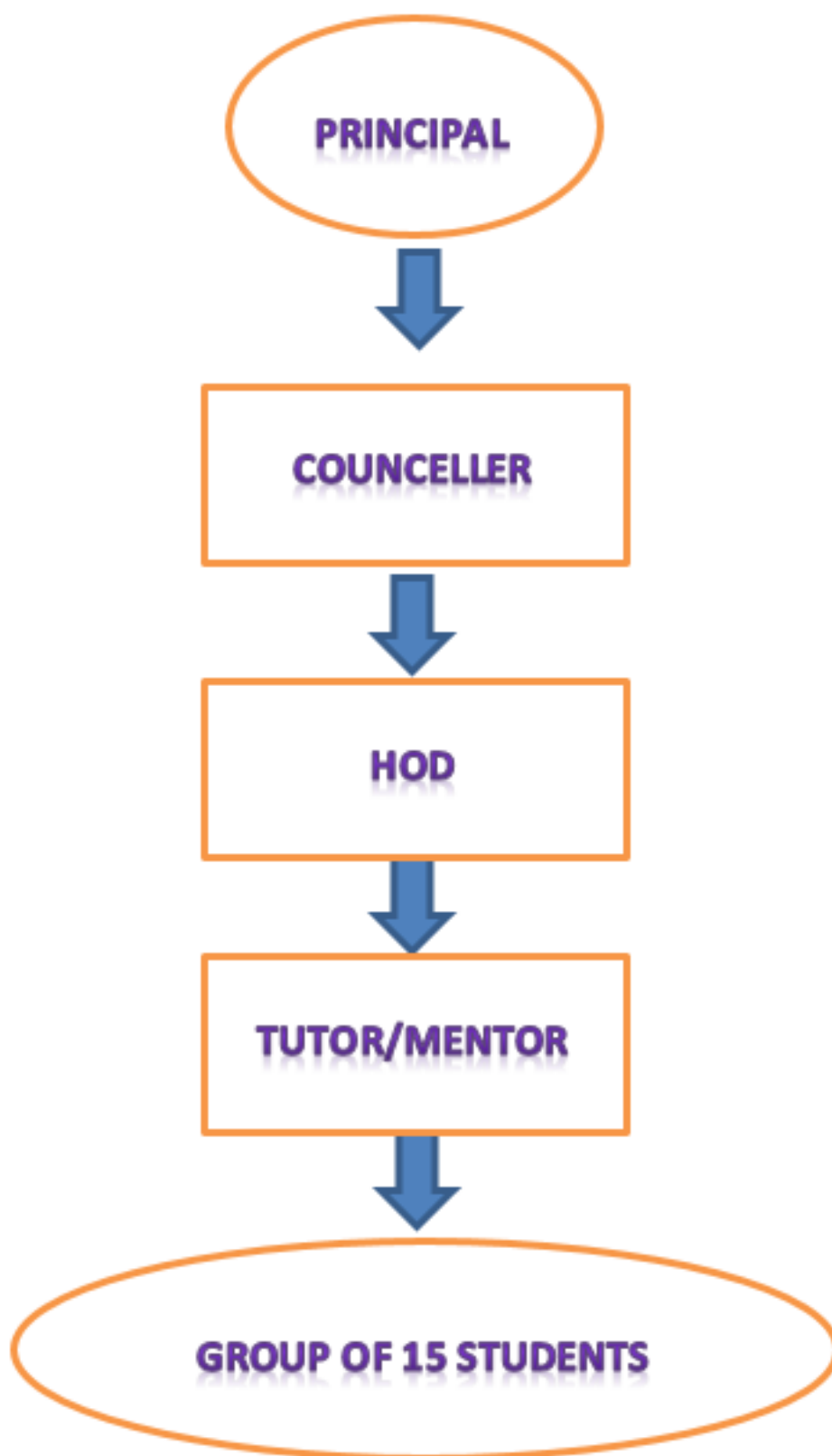
PHYSICAL FACILITIES

I. SAFETY AND SECURITY

The management of JCET has executed several measures to safeguard the safety and security for students, administrative staff and faculty members.

- a. CCTV CAMERAS
- b. SECURITY GUARDS
- c. REGISTER BOOK
- d. COUNSELLING

In JCET, a unique counselling and mentoring system is functional and the students' group mentors provide counselling regarding gender sensitization and it helps the students to realize their academic and personal goal.



e. COMMON ROOM

f. DAILY CARE CENTER FOR CHILDREN

2. OTHER FACILITIES

1. COMPLAINT / SUGGESTION BOX
2. TELEPHONE DIRECTORY
3. RESTRICTED PARKING
4. WAITING ROOM FOR PARENTS
5. MEDICAL FACILITIES IN CAMPUS
6. ID CARD
7. WASHROOMS
8. DISCIPLINE RULES AND REGULATIONS
9. HEALTH CARE FACILITIES

3. COMMITTEES

- i) INSTITUTION GRIEVANCE REDRESSAL COMMITTEE
- ii) ANTI RAGGING CELL
- iii) SEXUAL HARASSMENT PREVENTION CELL
- iv) STUDENT'S DISCIPLINARY COMMITTEE
- v) WOMEN WELFARE COMMITTEE
- vi) SC/ST STUDENTS WELFARE COMMITTEE

Fire extinguishers have been installed in the laboratory, corridors and hostel premises. Ragging in any form is strictly prohibited in campus and hostels. Common facilities like Library, Canteen, Cafeteria, Book Stores and Photocopy Centre take care of the basic needs of all the faculty and the students.

File Description	Document
Link for specific facilities provided for women in terms of: a. Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document
Link for annual gender sensitization action plan	View Document

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

measures

1. Solar energy
2. Biogas plant
3. Wheeling to the Grid
4. Sensor-based energy conservation
5. Use of LED bulbs/ power efficient equipment

Response: A. 4 or All of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

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

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

Response:

The institution conserves the prestige of a zero-waste campus through a tenacious and operative action plan. While dry waste is recycled, wet waste is used for composting. The college takes complete attention in order to make sure that the wastes generated do not end up in landfills.

The institute, in association with various bodies such as NCC and NSS etc., give emphasis on reducing the waste material and its appropriate dumping in the campus with a motto of Decrease, Reprocess and Reutilize.

WASTE MANAGEMENT STEPS

1. Solid waste management
2. Liquid waste management
3. E-waste management

1. SOLID WASTE MANAGEMENT

- The major solid waste materials generated in the institute include horticultural waste, such as dried leaves or plant clippings, food wastages. The fallings of trees are regularly collected day to day

basis by a crew of housekeeping personals.

Necessary dustbins are kept at several places to collect Bio-degradable and Non-biodegradable wastes. These

- wastes are disposed-off with the help of housekeeping workers.
- Bio-compost unit is installed near to the canteen and the biogas produced is used for cooking.
- The institution organizes various programs such as Plastic Free Campaign, Recycling Plastic Campaign and Awareness Classes on World Environment Day etc.
- Girls' toilets are equipped with sanitary-napkin vending-machines and napkin-disposal-bins. Toilets are kept clean, neat and odor free with fresheners.
- There are compost pits in the campus and the management ensures all the wastes were disposed after segregations.

2. LIQUID WASTE MANAGEMENT :

JCET manage liquid waste in the following ways:

a. Reduce Liquid waste

b. Reuse/Recycle

- To reduce the water usage, various sensitization programs are conducted for students on the conservation and use of water.
- Liquid waste generated in the institute is treated in septic tanks and disposed into soak pits.
- To manage the Liquid waste generated within the campus from Kitchen/ Bath Rooms and sewage from the toilets, etc., separate chambers and pipelines have been constructed.
- Waste water is treated through Sewage Treatment Plant (STP) setup in the institute.

Indiscriminate use of chemicals is discouraged during practical classes and laboratory liquid chemical wastes are safely disposed-off. Separate bins are placed in the laboratories with environmental friendly manner. to collect Glass Wastes and later it disposed

File Description	Document
Any other relevant information	View Document
Link for Geotagged photographs of the facilities	View Document

7.1.4 Water conservation facilities available in the Institution:

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

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.5 Green campus initiatives include:

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

Response: A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

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

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

1. Built environment with ramps/lifts for easy access to classrooms.

2. Divyangjan friendly washrooms
3. Signage including tactile path, lights, display boards and signposts
4. Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment
5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading

Response: A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document
Any other relevant information	View Document

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 500 words).

Response:

The institute had constantly encouraged the students to organize and participate in different programs organized by College, Inter-College, University and Government or Non-Government Organizations to make them sensitize towards Cultural, Regional, Linguistic, Communal and Socio-Economic Diversities.

The institute follows the motto of “Moulding True Citizens” and students inculcated through programs to maintain cultural harmony

- and socioeconomic goals in providing an inclusive environment in the college premises.
- The institution generates patriotism among the students and staff members by celebrating birth/death anniversaries of the great Indian personalities. For example institution starts with the day with prayer and ends with National Anthem.
- Institute celebrate national festivals such as Independence Day and Republic Day. On the auspicious occasion of Independence Day, Republic Day, Gandhi Jayanthi etc. Various curricular and co-curricular activities are organized
- The students also celebrate the birth anniversary of Dr. S Radhakrishnan as Teacher’s Day. The main purpose of all these activities is to spread the message of patriotism and harmony among the youth.
- Institution also practices inclusionary practices at multiple levels including its admission policy, where students from diverse cultures are admitted.
- All festivals like Diwali, Onam, Christmas, Holi, etc. are celebrated with equal dedication.
- College produces the college magazine.

- Remedial classes are conducted and have a book bank for SC/ST/OBC and other students who need additional helps.
- INITIATIVE PROGRAM
 1. SCIENCE EXPO
 2. FRESHER'S DAY
 3. COMMEMORATIVE DAYS
 - a) REPUBLIC DAY
 - b) INDEPENDENCE DAY
 - c) GANDHI JAYANTHI
 4. SPORTS FEAST
 5. YOGA DAY
 6. BLOOD DONATION CAMPS
 7. COLLECTION FOR FLOOD RELIEF CAMP:
 8. POLYGARDEN VISIT

File Description	Document
Link for supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

The institution has taken the initiation of familiarizing the Constitution of India through several awareness programs interrelated with Human Rights, Fundamental Rights, Legal Awareness, Traffic Awareness, Civil Safety, Values etc., The institution proposals various activities to harvest awareness about the national uniqueness and symbols.

The institution has initiated many initiatives to sensitize the staff and students towards

constitutional obligations. The mission declaration of the institution itself advocates that the institution must offer an environment that empowers the students to play a vibrant role in the nation-building process and contribute to the advancement of humanity. This prime crux on the constitutional values and principles are found in the curricular and extracurricular activities of the College.

The institution delivers a democratic environment to all students, where they can enquire questions, debate and discourse among themselves and with the faculty to advance an open-minded attitude, indispensable for becoming conscious citizens.

The institution encourages the students to participate in Blood Donation Camps, Study Tours, Various Awareness Programs and that make them appreciate the importance of defending the cultural legacy of the country.

The institution has also conducted special lectures on Fundamental Duties and Rights, where subject experts enlightened the students about importance of the Indian constitution and how we must work-out in the path of defending and following our constitution.

Singing of National Anthem in the campus every day so as to bring a feeling of patriotism among all is practiced. The students also being the responsible citizens take part in many community services and provide services to mankind and society. The students have taken up numerous cleanliness drives both inside the campus and nearby villages considering it as a duty of every citizen. The students have also taken up plantation drives to offer a hygienic and green environment for all.

Every year Institute celebrates important Days like Republic Day, Kerala Piravi, Independence Day etc. The celebration is attended by Students, Teaching and Non-teaching Staffs, Invitees, guests and other attendees.

GLIMPSES OF CONSTITUTIONAL OBLIGATIONS SENSITIZATION PROGRAMS IN THE INSTITUTION:

ACTIVITY 01: CELEBRATION OF INDEPENDENCE DAY

ACTIVITY 02: REPUBLIC DAY CELEBRATION

ACTIVITY 03: BLOOD DONATION CAMP

ACTIVITY 04: ROAD SAFETY RALLY

ACTIVITY 05: PLANTATION DRIVE

ACTIVITY 06: CLEANLINESS CAMPAIGN

ACTIVITY 07: ENVIRONMENT DAY

ACTIVITY 08: INDUCTION OF THE STUDENTS ON VALUES, RIGHTS, DUTIES AND RESPONSIBILITIES

ACTIVITY 09: LEGAL AWARENESS PROGRAM

ACTIVITY 10: ORIENTATION PROGRAMME ABOUT LAWS

ACTIVITY 11: COMMUNITY SURVEY

ACTIVITY 12: AWARENESS PROGRAMME ON DRUG ABUSING AND ADDICTION

ACTIVITY 13: CELEBRATION OF ONAM - CULTURAL FESTIVAL OF KERALA

ACTIVITY 14: FLOOD RELIEF IN THE YEAR 2018

ACTIVITY 15: INTERNATIONAL YOGA DAY

ACTIVITY 16: SCIENCE DAY CELEBRATION

ACTIVITY 17: TEACHERS DAY CELEBRATION

ACTIVITY 18: AIDS AWARENESS RALLY

File Description	Document
Link for details of activities that inculcate values necessary to render students in to responsible citizens	View Document

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

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

Response: A. All of the above

File Description	Document
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	View Document
Code of ethics policy document	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

The institution celebrates national, international, commemorative days, events and festivals enthusiastically every year. All staff members and students gather in the campus to celebrate these days.

COMMEMORATIVE DAYS:**1.REPUBLIC DAY CELEBRATION**

On Republic day various activities like slogan writing, poster competition , paintings are organized to highlight the importance of constitution.

1.INDEPENDENCE DAY CELEBRATION

The institution celebrates Independence Day every year and the day denotes the importance of freedom, on this day, Flag hoisting ceremony is organized and it followed by recitation of the National Anthem.

1.GANDHI JAYANTHI

The institution celebrates the Gandhi Jayanthi on every year. The students were engaged in different maintenance and renovation activities .

NATIONAL OR INTERNETIONAL DAYS**1.ENVIRONMENT DAY**

Environment Day is celebrated by the institution every year. Tree plantation, cleaning activities etc are parts of this day

1.INTERNATIONAL YOGA DAY

International Yoga Day is also Celebrated every year in the campus to spread awareness about the significance and value of Yoga on health and the importance to preserve both physical and mental health.

1.SCIENCE DAY CELEBRATION

The Science Day is celebrated in our institute every year. Science exhibition was organized in our college to develop the scientific attitude among the students.

1. TEACHERS DAY CELEBRATION

In the remembrance of Dr. Sarvapalli RadhaKrishnan, Students expressed their gratitude and love by giving flowers to their teachers. Senior teachers were honored and some senior students took classes for their juniors.

1. WOMEN'S DAY

A debate competition on the topic 'Is feminism relevant in this new world' was organized as a part of women's day celebration.

1. AIDS DAY

Programmes such as AIDS awareness rally, seminars etc have been conducted on this day.

1. YOGA DAY

On this special day Yoga demonstration was conducted. Yoga master Shri Shri Chaitanya Padmanadha was the chief guest. It was a wonderful experience for the students.

1. ENGINEER'S DAY

On this day IAS rank holder Mr K C Arjun ,who is the former student of the institute was honoured.

EVENTS AND FESTIVALS

1. ONAM : Pookalam competition ,Thiruvathirakkali etc were conducted.
2. KERALA PIRAVI :
3. CHRISTMAS : All students and teachers get dressed in red and white and gifts exchange was conducted.
4. CULTURAL FEST: Every year cultural fest named 'MALHAR' is conducting in the institution.
5. SPORTS
6. TECHFEST: The institution regularly conducts Intercollege competitions on this occasion.

File Description	Document
Link for Geotagged photographs of some of the events	View Document
Link for any other relevant information	View Document
Link for Annual report of the celebrations and commemorative events for the last five years	View Document

7.2 Best Practices

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

Response:

Best Practices- 1

Quality Circle- Performance Circle (QC-PC)

Objectives

- To improve the students' personality through systematic academic practices.
- To improve the communicative English skills of the students.
- To motivate the students by to lead a successful academic career.

To provide appropriate academic drills regularly to boost the

- confidence of the students.

The Context

Jawaharlal College of Engineering and Technology not only strives to inculcate technical brilliance amongst its students but also envisages to create a generation of responsible, dedicated and perfect citizens who have professional competency and emotional stability. Hence the institution provides training and experiences for the students to prune both their personality and communication skills. Developing communication skills in English has become the need of the hour, particularly for professionals who desire to achieve success in their career. Unfortunately, most of the students who pursue their higher education from the rural areas of our country fail to communicate effortlessly in English. The lack of proper drills and training right from the primary classes till they reach their tertiary level of learning is the main reason behind this. Kerala is no exception in this regard. JCET realizes the necessity to develop the communication skills of its students in English along with the technical education. Hence the students are given special training in all the four English language skills- listening, speaking, reading and writing, through the practice titled, QC-PC, when expanded, it reads Quality Circle- Performance Circle. QC-PC is a platform where the students are given a thought provoking quote every day, so that the message carried

in the quote would become an inspiration for the students to kick off the day with a positive outlook.

The Practice

In order to develop their English vocabulary, two new words are given to the students. They should find the meaning of the words and its different usages with examples. A topic for group discussion is also provided which would be helpful not only to improve the English speaking skills of the students but also helpful in developing critical thinking and boosting the self-confidence of the students. Along with these drills, the faculty members provide drills on listening and reading activities to the students every day as a part of this programme. Every student takes note of the thought for the day as an inspiration to get along with the academic activities actively and enthusiastically. The new words that they familiarize themselves with through the QC-PC activities are also noted down by the students. They are asked to use those words that are appropriate in their class notes and this ensures their comprehension of the new words. The faculty members use the last quarter of their academic hour to engage the students in the group discussion and other speaking, reading and listening activities as a part of QC-PC.

Evidence of Success

- QC-PC activities help the students to break the hesitations and participate in the classroom activities.
- The day starts positively and it changes the monotonous environment.
- Students improve the communication skills.
- Students get to know about new websites which would help them to gather more information on their academics.
- Students could improve their skills in taking interviews.

• Problems Encountered and Evidences Required

Due to the heavy workload and loaded syllabus, the faculty members could not increase the duration of QC-PC activities. Sometimes, the debates and group discussions had to be concluded abruptly due to time constraints. This creates dissatisfaction among the students and due to this some students do not take initiation to participate in the activities. A rescheduling of the academic hours to find proper and sufficient time for the QC-PC activities is needed.

Best Practices- 2

Career Guidance Classes and Workshops on Skill Development

Objectives

- To motivate the students of other academic institutions, particularly the higher education centres, to realize the value of true education.
- To facilitate the students to realize their true potential and strong and weak areas in the academics.
- To motivate the students to enhance their skills and help them to achieve accolades and merits in their academics and later in their professional career.

- To provide quality education on soft-skills development to the students in nearby institutions.

The Context

To equip the students to lead a successful life by contributing enough to the well-being of the society is one of the prime tasks entrusted upon the faculty members of higher education institutions. Even though the curriculum and structure is rich enough to build a strong academic foundation to all the students, the academic institutions often fail to take these facilities to the students in right proportion. Education should be a complete process where the duties and responsibilities of a teacher do not end only at merely imparting the prescribed lessons to the students. It is indeed the responsibility of the teachers to make the students realize the

significance and necessity of learning life skills to lead a successful life. Students should learn the lessons and should also be aware of using the information gathered in the right places at the right time. It requires a lot of courage and confidence for the people to do the right things at the right time. Often even the educated people fail to do the same due to the lack of courage and confidence. Hence it is the duty of the teachers to boost the morale and confidence of the students by teaching them the essential life skills. JCET considers it as its one of the duties to impart quality education not only to its students but also to the students of other academic institutions as demanded by them.

The Practice

The faculty members of JCET go every year and conduct 10 hours of mandatory life skills training and career guidance to the students of higher education institutions within and outside Palakkad district. The classes are conducted as per the convenience of the host institutions and the faculty members. Usually they follow a design for the classes where they conduct a pre-test either through questionnaires or through personal interviews with the students and understand their level of knowledge, confidence and enthusiasm in participating in the academic process. Then, based on the results gathered, the faculty members adopt suitable methods; most often the activity based participatory learning method to make sure the complete participation of the students. The modules include lessons of essential life skills and elementary communication skills. After the completion of the discussions of the lessons included in the modules, the teachers conduct a post-test and evaluate the impact of the classes from the results achieved through post-test.

Evidence of Success

- The students show great level of enjoyment and excitement in their learning process and they feel rejuvenated to learn further.
- Students become aware of the myriad possibilities of application of the lessons learned through activity oriented education.
- Students take initiation to make their regular classes activity oriented and try to participate in the daily learning process.
- The students become eligible to choose the right career and right higher education options as they realize their true interest and potential after the classes provided by the faculty members of JCET.
- Students opt for higher education such as PhD and other research programmes instead of taking any sort of job which does not have any connection with the skills achieved through education programmes.

Problems Encountered and Evidences Required

The students participating in the career guidance classes conducted by the faculty members of JCET demand more hours of classes than what is meant for them which in turn create difficulties for the faculty members to cope up with. The faculty members could not provide special training to the students who are comparatively slow in their learning process due to time constraints. The lack of proper screening before enrolling the students to the career guidance programme also creates difficulties to the faculty members as a few students who are least interested in participating in the activities create troubles and difficulties to the students. The busy academic schedule creates difficulties for the academic institution authorities to arrange classes for the faculty members of JCET to conduct sessions in their institutions. The busy academic schedule create difficulties for the faculty members as well as they find the time too short to complete the syllabus prescribed the students of JCET and then go to different institutions of career guidance and skill development programmes.

File Description	Document
Link for Best practices in the Institutional web site	View Document
Link for any other relevant information	View Document

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:

Fulfillment of the goal “Moulding True Citizens” in every sense.

The objective of our institution is ‘Moulding True Citizens’ with high professional standards. It also strives to create meritorious professionals to serve the humanity by setting a commendable tradition of initiatives. The institution is imparting engineering education with a sense of self-discipline and accountability and overall personality development among budding professionals with respect to democratic, ethical, emotional, intellectual and moral values.

A ‘Semester orientation program’ to explain the relevance of the subjects and various activities scheduled in respective semester, which helps the students for better semester planning. In this bridge program students are encouraged to participate in various skill development programs which helps to improve their confidence level. Every year the institution conducts sessions of eminent personalities to enrich the knowledge level and morality of students.

The academic hours start with a prayer. The QC-PC(Quality Circle Placement Circle) activities are

being conducted, 5 minutes prior to the commencement of the classes to improve students' personalities and to get rid of the stage fear. The principal provides the quote for the day, words for the day and activities for the day to the students on the previous day to have a discussion on these topics and make a presentation in the QC-PC hours in the next day. All the students invariably get a chance to participate in this. This boosts up their confidence to participate in the interviews. These activities help the students to improve their vocabulary and learn moral values.

A diverse array of opportunities is provided to the students to enhance their knowledge beyond academics. Organizing various National and International level Conferences, Hands on training and workshops, Technical summits by which the students are exposed to the recent developments. In order to bring out the hidden talents, students are encouraged to organize Cultural extravaganza named 'Malhar', Sports, Techfest etc. These events allow the students to excel in Co-Scholastic areas as well. Improvements are visible in terms of student participation in inter-collegiate competitions that include paper and poster presentations, project competitions etc.

In the view of establishing a research ambience, students are encouraged to innovate and develop projects .

The 'Placement and Training cell' is an integral part of our institution that ensures the students are well trained and prepared to face their campus interviews effectively. The training programs of leading companies like Infosys, Tech Mahendra etc are scheduled right from the first semester with a focus on Communication and Aptitude skills, Soft skills and Technical skills enhancement. These meticulous efforts of trainings guided our institution to achieve many offers through reputed companies in our institution.

Professional bodies such as IEEE, ISTE, ICT, ICI, CSI, Aeronautical Society of India are available in JCET. These student chapters are involved in updating the technical knowledge of the students by organizing Seminars, Special lecturers by eminent personalities from industries, group discussion and workshops regularly.

The institute provides the best possible infrastructure facilities for intellectual development of students. A few of remarkable amenities such as Central Library with 5580 sq.ft of comprising 29,337 volumes of books, 7 volumes of Encyclopedia and 118 National Journals and 22 International Journals.

Sports are given equal weightage as academics. A ground with an area of 5000 m² makes the students strong physically and mentally which indirectly helps to improve their learning skills. Student team won prizes in several intercollege meets.

NSS unit observes and organizes various programmes on all International and National Importance days like Yoga day, World Human Rights Day, National Voters day, Environment day, AIDS, Women's day, so on. The institute strives to invoke the service mind of students by encouraging visits to orphanages and old age homes. The students enthusiastically participate and mingle with inmates and offer special lunch, sponsored by students and management. These visits passionately groom our students to gain an exposure

towards downtrodden lifestyle so as to make them responsible citizens.

NCC in the institute aims at creating a pool of organized, trained and motivated youth with leadership qualities in all walks of life, who will serve the Nation regardless of which career they choose. Needless to say, the NCC also provides an environment conducive to motivating young Indians to join the armed forces.

The pleasant atmosphere of the institution is highly conducive for the academic excellence and overall personality development of the students, which is evident from the University Results and rank holders. We are regularly conducting various coaching classes for KEAM, LET etc. we have an alumni Mr Arjun K C who is the 256th IAS rank holder which is a great inspiration to students. These kind of stand-alone activities mold students in every aspect.

File Description	Document
Link for any other relevant information	View Document
Link for appropriate web in the Institutional website	View Document

5. CONCLUSION

Additional Information :

The College has tied up AICTE/NTA for organizing and conducting national level exams to cater the needs of the students from rural villages. Otherwise they have to spend money and travel long distance to participate in these type of exams which are crucial for their career.

Establishment of Center of Excellence in Aeronautical Engineering.

JCET is a constituent of NGI TBI on Health Care and Internet of Things.

Establishment of SDPK facility with the state government funding

The institution is located in a terrain which is not polluting the environment in any way. Hence students from cities also enjoy the natural climate conducive for teaching learning.

Concluding Remarks :

JCET is a proactive leading institution in this part of the region of the country and serving rural people with the quality of engineering education. JCET facilitates active teaching learning of students with the latest teaching methodologies. The learning resources enable the students to have personalised learning. The institute explores all possible ways of offering different choices of courses for the students. JCET motivates the faculty members to do research and transfer the knowledge to the society. The institute constantly upgrades the infrastructure to suit to the changing needs of the students and faculty members. Alumni of the JCET are at various levels of Government /Private organisations is an indication of how they are groomed with action plans by different committees. The institute strives to achieve the motto "MOULDING TRUE CITIZENS" through its day to day activities in the natural climate, with the support of stake holders.