SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

L.B.REDDY NAGAR, MYLAVARAM
521230
www.lbrce.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

September 2021

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Lakireddy Bali Reddy College of Engineering (LBRCE) was established through Lakireddy Bali Reddy charitable trust in 1998 by a philanthropic NRI Sri Lakireddy Bali Reddy, a Chemical Engineer by qualification and a reputed entrepreneur. At present, the college is offering 9 B.Tech programs in CSE, CSE(AI&ML), AI & DS, IT, ECE, EEE, ME , CE and ASE with an intake of 1020 and 4 M.Tech programs in CSE, Thermal Engg., Power Electronics & Drives, VLSI and Embedded systems with total intake of 24 in addition to 120 intake of MBA program.

The college has autonomous status since 2010 granted by UGC and extended the autonomous status for six years up to 2022. The college has been consistently upgrading itself in terms of academics, research, industrial interaction, etc. amply putting in endeavours to conform to and evolve as envisaged by the Vision and Mission of the institution. At present, the college has 263 well experienced faculty members including 76 members with Ph.D. qualification. The college is spread over 65 acres of land with a built-up area of 39069.64 sq.m with the major facilities including 9 advanced labs, Internet with 1160 Mbps bandwidth, Digital library, 500Kwp solar PV system, Indoor and Outdoor stadium, Gym, Yoga center, NSS unit, NCC Girls wing, Girls and Boys hostels meeting all the norms of AICTE and is permanently affiliated to JNTUK, Kakinada.

The college is located in Mylavaram Panchayat on the National Highway No.30, and is located at 40 km from the Vijayawada Railway Junction, Central Bus Stand and 35 km from Vijayawada (Gannavaram) International Airport.

Five of our programs are accredited by NBA in 2008 and subsequently three programs in 2015 and five programs in 2018 under Tier-I. LBRCE was accredited by NAAC with 'A' Grade in 2013 and B++ grade in 2018. It has also been awarded 2(f) and 12(B) status and recognized as a 'Colleges with Potential for Excellence' (CPE) by UGC and ISO 9001:2015 Certified. Four of our departments are recognized as research centres by JNTUK,Kakinada. The institution is listed in the rank band of 201-250 by NIRF India Rankings-2020.

Vision

To empower students to become technologically vibrant, innovative and emotionally matured; and to train them to face the challenges of a quality- conscious globalized world economy.

The Institution is keen on attaining excellence on the academic front by strengthening the teaching–learning process with a suitable mix of educational philosophies and practices that are relevant to the contemporary world of technology and workplaces. We attach a great deal of emphasis on harnessing the core human values to perfection, just in the right alignment with a steadfast focus on developing conceptual clarity and real time learning as expected of a prospective professional. The institution also focuses on undertaking advanced collaborative research on self-generated research projects to the funded ones, both in Process and Product based avenues to mould itself into a centre of advanced research. The institute is committed to put in place learning and guidance systems and processes, both at macro and micro levels to produce highly skilful and industry ready graduates equipped with the relevant knowledge, skills and strong personality traits.

Mission

- To provide an environment most conducive to learning and to create a stimulating intellectual atmosphere on the campus.
- To achieve Academic Excellence.
- To ensure a holistic development of personality.
- To spread education to rural areas.
- To establish partnership between Institution & Industry.

In order to realize the vision of the institution, the institute has come forward with its Mission statement that categorically pronounces its commitment to producing globally competitive technocrats with best professional and personal attributes. The institute looks forward to making students inculcate a pragmatic approach towards learning and career development so that they progressively develop a relevant set of cognitive and behavioural skillsets like critical thinking, problem solving, creativity and clarity of expression to be able to withstand competition at the global level. Through our well-defined learning processes and engagement mechanisms, we encourage students to become proactive learners, quality-conscious individuals and dynamic team players who conform to the standard procedures of the institution, without prejudice. We expect our students to religiously adopt fundamental teaching–learning processes, explore newer VIST (Variation, Inheritance, Selection, Time (evolution)) with a prudent eye and deeper insights into advanced enquiry and develop the required expertise and higher order awareness and competence in contemporary and emerging technologies, while possessing necessary social consciousness for offering realistic solutions for societal problems with commitment to overall development.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1. Pro-active and Service-oriented Management
2. Academic Autonomy
3. Industry Relevant and Student Centric Curriculum
4. Well-qualified and Efficient Faculty
5. Conducive Atmosphere for Teaching-Learning Process
6. Well Organized Student Mentoring System
7. Multi-Discipline Skilling Facilities
8. Robust R&D
9. Extension Activities for Community Engagement
10. Adequate Physical Space and Infrastructure

Institutional Weakness

1. Geographically Located in a Rural Area
2. Limited Revenue Generation through Consultancy
3. Lack of Diversity in Stake-Holder Profile
4. Far away from Industrial Clusters

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Institutional Opportunity

1. Growing Industrialization and IT-Sector
2. Empowering Rural Communities Through Technology Support
3. Exploring Possibilities of Industry-Institution Collaborations
4. Skill-Development Initiatives of both Centre and State Government
5. Vast Potential for Collaboration with Premier Institutions in India and Abroad
6. Scope for Interdisciplinary Collaboration
7. Creation of Innovation and Start-up Eco-System

Institutional Challenge

1. Declining Employment Scope in Core Areas of Engineering
2. Adoption of Virtual Teaching-Learning Platforms
3. Presence of Premiere Institutions in Close Proximity
4. Sustaining per Capita Admission Revenue
5. Attracting Faculty from Premier Institutions
6. Attracting Prospective Students from Other States
7. Strengthening Start-up Culture

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The autonomy status granted for our college makes it mandatory to adopt a new curriculum in every three years. Accordingly, institution has designed new regulations and curriculum in 2017 and 2020. The objectives of the new curriculum are to provide improved flexibility, wider coverage of courses in every program offered, suitability for industry requirements and to the expectations of stakeholders in line with AICTE model curriculum and Andhra Pradesh State Council of Higher Education (APSCHE). Curricular aspects of both the UG and PG programs are revised periodically as per UGC and AICTE guidelines and industry requirements.

Suggestions on curriculum are received from Departmental Academic Committee and Program Assessment Committee and are discussed in Board of Studies and finally approved in Academic Council. A structured feedback system is in place to receive inputs on curricular changes from all the stakeholders. The curriculum includes basic and engineering science courses, humanities and social science courses, core courses, program electives, open electives, and mandatory courses (environmental science, professional ethics and human values). Choice based credit system incorporated in the curriculum provides flexibility for students to take up project work entirely in last semester. Majority of the students are carrying out field projects, internships and other interactive programs in association with industries due to flexible curriculum. About 80-85% of courses in each program focus on employability and skill development. Different value-added courses are offered by various collaborative labs set up by industry/academia that includes APSSDC, CISCO, Dassault Systems, NI, European Centre for Mechatronics, IIT-B and IISc. A good number of students are benefited in placements and higher studies utilizing Choice Based Credit System.

Teaching-learning and Evaluation

The admission to various programmes is done based on the guidelines of Andhra Pradesh State Council of Higher Education. With the brand name the demand of the LBRCE has increased year by year filled through state level entrance exam.

The institution, having the policy of recruiting well qualified and experienced faculty as per AICTE and UGC norms has contributed to better implementation of Teaching-Learning process. The Teaching-Learning process adopts different methods such as participative learning, experiential learning, and problem-solving methods, classroom teaching, utilizing ICT facilities, LMS and e-resources. The institution has established a media centre to develop the online video lectures. All the academic activities are carried out by following approved academic calendar. Well-structured mentoring system is designed to monitor academic and personal issues of students. Necessary efforts are being made in identifying the learning levels (advanced and slow) of the students through various assessments and additional training is imparted to slow learners. The regular classes are complimented and supplemented with tutorial classes. Bridge courses are also organized for the freshers, slow learners and lateral entry students.

The institution is maintaining Student Faculty Ratio as per the AICTE norms. The institution encourages the faculty for upgrading their qualification, domain knowledge and providing incentives for quality research publications and securing sponsored projects.

Various reforms are introduced in examination process through automation resulting in secured, fair conduct of examinations and early declaration of results.

Moving towards the 'Outcome Based approach' in the teaching-learning-evaluation process, every program in the institution has formulated a set of PEOs and PSOs. Apart from this, a set of COs have been framed for each course and is communicated to faculty and students through website & syllabus books. Systematic procedures have also been devised for assessing the attainment of these Outcomes. The appropriate corrective measures are adopted based on the attainment levels observed every year for all incremental improvements.

Research, Innovations and Extension

The college promotes research in all areas of science, engineering and technology. LBRCE has been striving hard to excel in the sphere of research steered by well-defined R&D and Consultancy Policies, and Code of Ethics. Four departments of the institution have been recognized as research centres by the affiliating university. To promote research culture among the students and faculty, LBRCE has established an R&D cell. Eminent academicians are included as advisors to the R&D cell to help and promote R&D activities. To promote the Entrepreneur skills among the students, institution has established a Centre for Innovation, Incubation and Entrepreneurship (CIIE) which has received two star and three-star ratings form MHRD Institution's Innovation Council (IIC) in the academic years 2018-19 and 2019-20 respectively. The institution has been executing multidimensional endeavours including providing seed money, incentives to faculty for R&D accomplishments, and conducting workshops on IPR by inviting senior scientists from Indian Patent office as resource persons.

College has received research fund of few crores from funding agencies during the period of 2015-16 to 2019-20. College has signed 29 MoUs with National/International organizations for academic and research collaborations. The college has also established 09 advanced laboratories in association with APSSDC, CISCO, DASSAULT, ARK solutions, National Instruments, ECM-Germany, IISc and IITB.

Faculty and Students of the college have published 815 research papers in Peer Reviewed Journals, 82 books/chapters, 53 conference proceedings and 20 patents in last five years. Thirty four faculty members are recognized as research supervisors and 44 scholars are registered under them and 05 scholars are awarded Ph.D under their guidance in last 5 years.

The NSS unit and 4(A) Girls Bn NCC wing take-up various services-oriented activities in and around the region. College has received awards, and recognitions from the Government/ recognized bodies for these extension activities. More than 150 extension programs are conducted in the last five years.

Infrastructure and Learning Resources

The college is spread over 65 acres of land with a built-up area of 39069.64 sq.m providing for classrooms, laboratories, drawing halls, workshops, seminar halls, auditoriums, workspace for faculty, girls waiting halls, and sanitation facilities. The other major facilities include 9 advanced labs, 500 kWp solar PV system, indoor and outdoor stadiums, Gymnasium, Yoga centre, NSS unit, 4(A) Girls Bn NCC wing, Girls and Boys hostels.

The institution is having a policy for continuous upgradation of IT facilities with required number of computers and connected with fibre optic network and Wi-Fi to enable all the stakeholders to access all the learning resources and ICT services in the campus. The Institution provides 24×7 internet facility with 1160 Mbps bandwidth. The Institution takes care of all physical, academic, IT and other facilities with effective maintenance support allocating appropriate budget for optimum utilization of the resources.

A fully automated library along with a digital library is available to facilitate students and faculty. It has a collection of books with 12,114 titles and 54,100 volumes. The library has subscription for 115 national journals, 45 magazines, and 6800 e-journals (IEEE, ASME, SPRINGER, ASCE, ELSEVIER, DELNET and JGATE), e- ShodhSindu, Data base and remote access. Selected copies of textbooks and reference books are also maintained in the departmental libraries.

The College is committed to promote sports activities towards the all-round development of its students. The campus has indoor and outdoor facilities for games such as Cricket, Football, Volleyball, Ball badminton, Tennis, Basketball. Athletic track of 400m is made available for conduct of athletic events. The College has well qualified Physical Education staff, yoga instructor, and gymnasium trainer. These facilities suffice for university zonal tournaments in the campus.

Student Support and Progression

The college has a cross-section of students who have been benefited by different scholarships and free-ships provided by the government. In addition, the institution has a policy of providing scholarships/ free-ships to Academic Toppers, economically weak students and students with 100% attendance.

Language and communication skill centre, Yoga Centre, Gym and Sports & Games facilities are available to ensure a holistic development of students. Advanced learners in every department are supported with coaching for competitive examinations.

Institution level Clubs like Prakruthi-The Environmental Club, Saheli-The Girls Club, Spoorty-The Literary Club, and Kruthi-The Fine Arts and Cultural Club are available to contribute to overall personality

development of the students. Department technical clubs and student professional society chapters are available to enhance skill set of the students in terms of leadership capability.

The college has a transparent mechanism for timely redressal of student grievances through Anti-ragging Committee, Internal Complaints Committee (ICC) (Anti-sexual harassment) and grievance redressal committee.

In addition to students' council, active involvement is there in all academic and administrative committees of the institution by students. They are actively participating at National, State and University level in sports & Games activities in various tournaments and competitions organized in different parts of the country. They also have won many awards at these events.

The institution has a dedicated CCGT section to cater for career guidance and skill enhancement for soft skills as well as technical skills of the students. There is a noteworthy growth of placements of the college. An average of 10% of students are observed to be going for higher studies.

Alumni meet is being organised on a grand scale every year in the month of February. Alumni are supporting the institution in the form of corpus fund, expert lectures, internships, placement, curriculum design and other activities.

Governance, Leadership and Management

The institution has an effective governance mechanism in line with the vision and mission of the institution by practicing decentralization and participative management involving Principal, Deans, Heads of Departments, Program Coordinators and faculty in-charges. Each of the functionaries has specific role and responsibility. The academic policies, rules and regulations for different programs offered by the institution are framed. The institution has a strategic plan implemented with the help of certain key performance indicators to reach the goals. The statutory committees such as Governing Body, Academic Council, Board of Studies and Finance Committee and non-statutory committees are constituted as per the norms of the regulatory bodies for smooth and orderly functioning of the institution.

The Institution has a budget policy in which decision regarding mobilization of financial resources is taken. The financial transactions of the college are subjected to regular internal and external audits.

Internal Quality Assurance Cell (IQAC) is responsible for all quality issues including accreditation processes, institutional rankings, teaching-learning, research, and environmental sustenance. Academic Audits, Curriculum Revision, automation in the examination Process and Online Certification Courses are some of the IQAC initiatives which are successfully implemented. During the preceding five years, the curriculum is revised twice with introduction of Choice Based Credit System, MOOCs, Program Electives and Open electives as required components. The quality improvement in research is manifested in publication of articles in indexed journals and filing of patents. The Performance index computation and Self Appraisal methodologies are in practice for encouraging the faculty for improvement, involvement and accomplishment. The faculty members are encouraged to attend FDPs, workshops, seminars, and conferences by extending necessary financial support. The number of placements and highest package are increased significantly as a result of conducting focussed training activities by internal trained and certified faculty. Automation of academic, student support, finance and administration processes are in place through E- governance. Implementations of green initiatives are the other major improvements.

Institutional Values and Best Practices

The Institution has a distinct objective of "Giving Back to the Society" in the form of spreading technical education in rural areas. In line with its vision of working towards the socio-economic development of the country, LBRCE has taken utmost care to give back to the society. The trust i.e running the college has many activities such as fee concession to economically weaker students, financial support to incubate innovative ideas, generous welfare measures for supporting staff, generous rural development activities, and adoption of nearby village. Many of our students get benefited or participate in these activities such that objective of "Giving back to the society" is fulfilled.

The college is sensitive to gender equity and promotion. Appropriate programs are organized regularly. Counselling facilities and common rooms are provided to female students with adequate safety and security, and the campus is monitored through CCTV surveillance. The institution has strong commitment to differently abled students and provides facilities such as ramps, lifts, special washrooms etc.

The college from the inception has been very conscious about environmental and green initiatives. The rain water is diverted into harvesting percolation pits constructed at various locations in the contour plan of the campus. The campus is well covered with plants and greenery. Solar PV generating plant stationed on roof top with total capacity of 500 kWp, caters to more than 35% of the power requirement of the Institution. The institution has a policy of conducting audits for Energy consumption, Green and Environmental protection at regular intervals.

Code of conduct for students, faculty, and administrators is separately specified. The college celebrates all important national festivals and organizes number of activities to promote universal values.

The college has adopted many best practices out of which two distinctive practices of our institute are **'Effective Implementation of Outcome Based Education(OBE) in Teaching-Learning Process'** and **'Ensuring Holistic Development of Students through Co-Curricular, Extra-Curricular and Extension Activities'**.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING
Address	L.B.Reddy Nagar, Mylavaram
City	Mylavaram
State	Andhra Pradesh
Pin	521230
Website	www.lbrce.ac.in

Contacts for Communication					
Designation	**Name**	**Telephone with STD Code**	**Mobile**	**Fax**	**Email**
Principal	K Appa Rao	08659-222930	8333905791	-	principal@lbrce.ac.in
IQAC / CIQA coordinator	B.ramesh Reddy	08659-222934	9440990927	08659-222931	brrece73@gmail.com

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	01-01-1998

Date of grant of 'Autonomy' to the College by UGC	12-08-2010

University to which the college is affiliated

State	University name	Document
Andhra Pradesh	Jawaharlal Nehru Technological University,Kakinada	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	01-04-2010	View Document
12B of UGC	01-09-2011	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	15-06-2020	12	The institute got Extended Extension of Approval for three years

Recognitions

Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	Yes
If yes, date of recognition?	30-08-2016
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	MHRD NIRF
Date of recognition	11-06-2020

Location and Area of Campus				
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**
Main campus area	L.B.Reddy Nagar, Mylavaram	Rural	65	39063.81

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,Aerospace Engineering	48	IPE or CBSE	English	64	56
UG	BTech,Civil Engineering	48	IPE or CBSE	English	64	58
UG	BTech,Computer Science And Engineering	48	IPE or CBSE	English	193	192
UG	BTech,Electrical And Electronics Engineering	48	IPE or CBSE	English	128	123
UG	BTech,Electronics And Communication Engineering	48	IPE or CBSE	English	193	191
UG	BTech,Electronics And Instrumentation Engineering	48	IPE or CBSE	English	60	0
UG	BTech,Information Technology	48	IPE or CBSE	English	128	127
UG	BTech,Mech	48	IPE or CBSE	English	128	102

	anical Engineering					
UG	BTech,Artificial Intelligence And Data Science	48	IPE or CBSE	English	64	64
PG	Mtech,Computer Science And Engineering	24	B.Tech or BE	English	19	0
PG	Mtech,Electrical And Electronics Engineering	24	B.Tech or BE	English	19	0
PG	Mtech,Electronics And Communication Engineering	24	B.Tech or BE	English	19	1
PG	Mtech,Mechanical Engineering	24	B.Tech or BE	English	19	1
PG	MCA,Master Of Computer Applications	36	B.Sc or B.Com	English	60	0
PG	MBA,Master Of Business Administration	24	Any Degree	English	128	103

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				43				35				161
Recruited	37	6	0	43	29	6	0	35	119	42	0	161
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				113
Recruited	86	27	0	113
Yet to Recruit				0

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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				48
Recruited	44	4	0	48
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	0	0	0	0	0	0	0	0	0	0
Ph.D.	36	6	0	16	5	0	6	3	0	72
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	1	0	0	13	1	0	113	39	0	167

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Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	**Male**	**Female**	**Others**	**Total**
	8	0	0	8

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	2323	15	0	0	2338
	Female	1370	11	0	0	1381
	Others	0	0	0	0	0
PG	Male	153	2	0	0	155
	Female	98	0	0	0	98
	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	103	90	86	98
	Female	57	43	56	36
	Others	0	0	0	0
ST	Male	21	17	13	18
	Female	7	11	7	10
	Others	0	0	0	0
OBC	Male	206	178	209	219
	Female	106	88	109	94
	Others	0	0	0	0
General	Male	132	109	116	133
	Female	130	75	97	95
	Others	0	0	0	0
Others	Male	0	23	5	6
	Female	0	11	6	3
	Others	0	0	0	0
Total		762	645	704	712

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Aerospace Engineering	[View Document](#)
Artificial Intelligence And Data Science	[View Document](#)
Civil Engineering	[View Document](#)
Computer Science And Engineering	[View Document](#)
Electrical And Electronics Engineering	[View Document](#)
Electronics And Communication Engineering	[View Document](#)
Electronics And Instrumentation Engineering	[View Document](#)
Information Technology	[View Document](#)
Master Of Business Administration	[View Document](#)
Master Of Computer Applications	[View Document](#)
Mechanical Engineering	[View Document](#)

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2019-20	2018-19	2017-18	2016-17	2015-16
14	14	16	16	15

File Description	Document
Institutional data in prescribed format	View Document

1.2

Number of departments offering academic programmes

Response: 10

2 Students

2.1

Number of students year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
3891	3848	3880	3843	3744

File Description	Document
Institutional data in prescribed format	View Document

2.2

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

2019-20	2018-19	2017-18	2016-17	2015-16
1030	1058	1024	1024	1020

File Description	Document
Institutional data in prescribed format	View Document

2.3

Number of students appeared in the examination conducted by the Institution, year-wise during the last five years

2019-20	2018-19	2017-18	2016-17	2015-16
3815	3776	3791	3769	3703

File Description	Document
Institutional data in prescribed format	[View Document](#)

2.4

Number of revaluation applications year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
365	296	375	490	767

3 Teachers

3.1

Number of courses in all programs year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
610	586	563	554	525

File Description	Document
Institutional data in prescribed format	[View Document](#)

3.2

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

2019-20	2018-19	2017-18	2016-17	2015-16
231	260	264	254	245

File Description	Document
Institutional data in prescribed format	[View Document](#)

3.3

Number of sanctioned posts year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
231	260	264	254	245

File Description	Document
Institutional data in prescribed format	[View Document](#)

4 Institution

4.1

Number of eligible applications received for admissions to all the programs year-wise during last five years

2019-20	2018-19	2017-18	2016-17	2015-16
1004	916	984	979	942

File Description	Document
Institutional data in prescribed format	[View Document](#)

4.2

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

2019-20	2018-19	2017-18	2016-17	2015-16
426	409	404	424	390

File Description	Document
Institutional data in prescribed format	[View Document](#)

4.3

Total number of classrooms and seminar halls

Response: 73

4.4

Total number of computers in the campus for academic purpose

Response: 750

4.5

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

2019-20	2018-19	2017-18	2016-17	2015-16
661	964.76	835.33	779.05	756.96

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

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

Response:

The curricula developed have relevance to the regional/national/global developmental needs with well-defined learning objectives and outcomes at programme and course level. The department and the institute are guided and monitored in the preparation of course curriculum by two bodies, namely Board of Studies and Academic Council and typically undergoes with the following:

The Institute follows the guidelines issued by the regulatory bodies such as UGC, AICTE, affiliated university JNTUK, Kakinada and Andhra Pradesh State Council of Higher Education (APSCHE) while designing the curricula. A series of all faculty meetings are conducted in correlation to the stated Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs). The set of courses which require modifications (deletion/addition) are prepared and programme curricula adopted at other leading academic institutes in India and abroad are compared.

The Institute hosts reunion meets of Alumni. During such meets the institute takes the initiative of eliciting their views and suggestions in respect of required changes in curriculum. Several Memoranda of Understandings (MoUs) with local and national industries relevant to programs have been signed to make students acceptable at local, national and global level. In order to have right mix of curriculum, pedagogy and assessment to achieve the desired course and program outcomes, curriculum development and approval involves deliberations at various levels through relevant committees such as Department Advisory Board, Program Assessment Committee and Board of Studies.

For the effective design of curriculum structure feedback is collected from students, faculty, alumni, parents and employers. Also by conducting workshops, seminars and conferences periodically, faculties get an opportunity to interact with the academic and industrial experts which helps to design the curriculum more effectively. The recommendations of these committees are put up to Board of Studies with detailed programme structure, curricula and syllabi and further recommendations of BoS are put up for the approval of Academic Council.

The Institute introduced Choice Based Credit System (CBCS) and self-learning courses using MOOCs platform through SWAYAM, Coursera and some industry offered courses for undergraduate programmes and utilizes Learning Management System (LMS) for effective learning process. Value added courses to enhance communication, employability and entrepreneurship skills are included in the curriculum. Internship and live projects are also undertaken by students to enhance employability.

The Institute established Centre for Innovation, Incubation and Entrepreneurship (CIIE) that helps in developing entrepreneurship skills among the students through their interaction with successful entrepreneurs and other related bodies. The Institute encourages the faculty and students to work in

emerging areas by involving local industry. Curriculum revision is a continuous process with respect to elective and laboratory courses as per the need of the industry and regulatory bodies from time to time even though the normal cycle of revision is 3 years.

File Description	Document
Any additional information	<u>View Document</u>
Link for Additional Information	<u>View Document</u>

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

1.1.2.1 **Number of all Programmes offered by the institution during the last five years.**

Response: 14

1.1.2.2 **How many Programmes were revised out of total number of Programmes offered during the last five years**

Response: 14

File Description	Document
Minutes of relevant Academic Council/BOS meeting	<u>View Document</u>
Details of program syllabus revision in last 5 years(Data Template)	<u>View Document</u>
Any additional information	<u>View Document</u>
Link for Additional Information	<u>View Document</u>

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 82.01

1.1.3.1 **Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..**

2019-20	2018-19	2017-18	2016-17	2015-16
517	492	454	446	421

File Description	Document
Programme / Curriculum/ Syllabus of the courses	[View Document](#)
MoU's with relevant organizations for these courses, if any	[View Document](#)
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	[View Document](#)
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	[View Document](#)
Link for Additional Information	[View Document](#)

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 28.96

1.2.1.1 How many new courses are introduced within the last five years

Response: 289

1.2.1.2 **Number of courses offered by the institution across all programmes during the last five years.**

Response: 998

File Description	Document
Minutes of relevant Academic Council/BOS meetings	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 100

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

Response: 14

File Description	Document
Minutes of relevant Academic Council/BOS meetings	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)
Link for 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:

All the programmes offered in the institution include courses that deal with cross-cutting issues relevant to Professional Ethics, Gender, Human values, Environment and Sustainability. Such cross-cutting issues are integrated into the curriculum as Core, Mandatory and Elective courses in the undergraduate as well as postgraduate programmes.

The institution offers courses on Professional ethics and Human values, Business ethics and Corporate Governance, Human Resource Management, Environmental Science, Environmental Engineering, Renewable Energy Sources, Renewable Energy Technologies, Green buildings, Water and Wastewater Engineering, Environmental Sanitation, Energy Environment and Pollution, and Energy Conservation and Management.

PROFESSIONAL ETHICS AND HUMAN VALUES:

We believe every student needs to develop a set of beliefs, attitudes, and habits that would help him lead a life of productivity with a strong moral character. The prime objective is to make each individual harness his true potential in his chosen field so that he/she is able to deal with challenges in engineering practice with confidence and ethics.

The concept of "Professional Ethics and Human Values" is a very relevant subject in recent times due to the prevalence of a professional environment affected by conflicts and stress. In such a scenario, this course will certainly improve one's ability and judgement and refine one's behaviour, decisions, and actions in performing the duty to the family, organization, and to the society.

The pertinent issues in professional ethics are analysed to help students develop the right understanding, which is focused on the development of their ethical competence. Towards the end of this course, students are expected to develop the right knowledge and motivation to undertake a journey towards holistic and value-based living.

ENVIRONMENT AND SUSTAINABILITY:

Our focus has always been to educate young minds to be sensitive towards the environment, make judicious use of natural resources and be respectable towards the nature and the various life forms. The courses on Environment and sustainability help students to understand the environment and nature in the most practical way with the focus on renewable resource harvest, ecology, biodiversity, pollution control and sustainable development. This intends to better equip students to make informed decisions and taking ecologically positive actions that are in the interests of all species in the natural habitat.

A Green Energy Club, PRAKRUTHI- The Environmental club organizes various programs to enhance environmental awareness and make students and staff become conscious of their roles in environment protection.

GENDER:

In addition to enriching the curriculum by integrating cross-cutting issues, the institution organises various programs and events by the NSS unit,4(A) Bn NCC Girls wing.

Moreover, the institution organizes special programs for girl students to achieve Women Empowerment and Gender sensitization through SAHELI-The Girls Club. Also, various awareness programs and commemorative events are organized on national and international days of importance such as World Health Day, World Cancer Day, World AIDS day, International Women's Day.

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

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 44

1.3.2.1 **How many new value-added courses are added within the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
10	12	12	6	4

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document
Link for Additional Information	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 26.63

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

2019-20	2018-19	2017-18	2016-17	2015-16
886	1123	1143	987	976

File Description	Document
List of students enrolled	View Document
Link for Additional Information	View Document

1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

Response: 25.42

1.3.4.1 **Number of students undertaking field projects / internships / student projects**

Response: 989

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

Response: A. All 4 of the above

File Description	Document
Any additional information	View Document
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document

1.4.2 The feedback system of the Institution comprises of the following :

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

File Description	Document
Any additional information	View Document
URL for stakeholder feedback report	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 86.05

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

2019-20	2018-19	2017-18	2016-17	2015-16
1004	916	984	979	942

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

2019-20	2018-19	2017-18	2016-17	2015-16
1231	1104	1092	1140	1050

File Description	Document
Institutional data in prescribed format (Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for 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: 89.73

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

2019-20	2018-19	2017-18	2016-17	2015-16
382	371	355	380	354

File Description	Document
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)
Link for 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:

The learning levels of the students are identified by the interaction of the faculty with students in the class and based on that, mentoring will be done by the respective mentor. Special care is given to slow learners by conducting additional classes and suggested to follow the standard pre-requisite books to understand the basics.

The mandatory continuous assessment also helps to assess the learning levels of the students, to categorize the slow and advanced learners for further measures. Before the first mid examinations, special classes are conducted for the first year and lateral entry students who seek late admission to be competent with other students.

1.Slow Learners

Students who secure less than 50% of marks in continuous assessments, and have one or more backlogs in the semester end examinations are considered as slow learners. The identified slow learners will be considered for bridge classes, and monitored by respective counsellor. In order to support and motivate the slow learners, the following measures are taken.

Bridge Classes

These are the preparatory classes, conducted to gain the knowledge to meet the current course requirement.

Remedial Classes

These classes are conducted for slow learners-with backlogs to make them clear about the concepts and to qualify in the respective exams to reach the expected leaning level.

Mentoring system:

For an effective mentoring of the students, 20 to 25 students are assigned to a faculty mentor. Mentors classifies the allocated students according to their academic capabilities into following four categories: prerequisite ability, perception level, focus and comprehension. Then students will be counselled by the mentor to improve his/her academic performance accordingly.

The college endeavours to look after the total personality development of students through soft skills training programs, career counselling programs, and Co-Curricular and extra-curricular activities. Apart from counselling, expert lectures in personality development are conducted regularly to motivate the students to get them placed in industry, pursue higher studies, and to deal with stress management.

2.Advanced Learners

Those who secure CGPA of more than 7.75 are considered as advanced learners. The following choices are offered for their higher levels of learning in the respective discipline of study.

- **Choice Based Credit System (CBCS**) is offered by the institution for the advanced learners from second year onwards. This system provides the opportunity for the students to carry out their final year project in industry or MHRD institution as an intern.
- Concentrate on job-oriented trainings to get better placements.
- An adequate time to mould their ideas into design and development of innovative models.
- Opportunities to participate in various conferences, seminars, quiz competitions, and paper or poster presentations.
- To do online certificate courses in NPTEL/Course-era to strengthen their knowledge levels. Crash course on competitive examinations (GATE, GRE TOFEL, IELTS) for higher studies.

- Advanced training on C, Data Structures, JAVA, Python and Emerging Technologies.
- Industry specific training to make them industry ready.

Self-Learning/MOOCs Courses are introduced in curriculum to facilitate the slow/advanced learners to learn selected courses of various disciplines to acquire contemporary knowledge.

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

Response: 16.84

File Description	Document
Any additional information	[View Document](#)
Link for 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:

In addition to traditional teaching-learning methods, the institute is highly interested in providing innovative methods for enriching the learning experience. The methodologies include illustration and special lectures, field study, case-studies, project-based-methods, experimental methods and group-learning methods. The facilities arranged by the institute are:

1. EXPERIMENTAL LEARNING

Summer Internship Project:

Large percentage of students of UG and PG Courses attend an Internship program for 2 to 4 weeks in the industry during the summer break between pre-final and final years of their programme. Internship is made mandatory in R14, R17 and R20 Regulations of B.Tech and M.Tech Programs.

Collaborative Laboratories: The Institute collaborated with APSSDC, DASSAULT, IBM, CISCO, ARK Solutions (ANSYS), NI Academy etc. software companies to train the faculty and students in industry need based technologies and practices.

Industry Driven National/Global Student Competitions: The institute encourages and prepares the students for competitions conducted by IIT/NIT/IIIT/AICTE institutes at national/global level.

Field Visits: The Institute gives top priority for technical visits at industries as a value-added learning method for students in every year.

LMS-MOODLE: The College made the MOODLE as one of the best practices to cover various learning levels such as asynchronous discussions, group tasks, home assignments, video lectures, demos, PPT illustrations, case studies etc.

2. PARTICIPATIVE LEARNING

Seminar/Workshops:

The Student seminars are mandatory in all programs offered at the institute. Usually students present seminar on contemporary topics as well as state-of-the-art technologies. Students are trained on regular basis in modern trends and innovative technologies by organizing workshops/seminars inviting experts from industry.

Group Assignments/Mock Interviews: Group discussions/tasks are conducted from second year onwards in soft skills courses. Mock interviews are conducted before the campus placements, to improve confidence levels in the student.

Case studies: The case study method is a participatory, discussion based way of learning where students gain skills in critical thinking, communication, and group dynamics. Appropriate integration of case studies in chosen subjects is arranged by all departments.

3. PROBLEM SOLVING LEARNING

Project–based Learning:

Project work is mandatory for all the programs offered at the institute. The period of implementation spans from one to two semesters. The effective phases of survey, case-study, implementation, testing and report writing ensure the required project–based learning among the students. Some courses are augmented with learning through implementation of Problem Assisted Learning (PAL)/ Problem Based Learning (PBL)/ mini-projects.

Tutorials: Intended to have individual attention to develop better problem solving skills.

Developing innovative models: Take up some real-world problems for developing new products/models with novelty in perspective of meeting challenges in industry, government and academia.

Mini and Major projects: Work done in the earlier semester through field visits and information gathering during Internship is continued for development and implementation.

Hands-on training programs: in every semester, training activities covering advanced courses, industry/latest trends are held for students to explore and practice on current technologies.

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

Institution encourages intensive use of ICT tools and online resources for effective teaching and learning processes. In this regard all classrooms, seminar halls, laboratories, and auditoriums are equipped with ICT facilities which include LCD projectors, computers with internet connection to make students understand the concepts easily by seeing the technology or concept visually. Additionally, every department has smart classrooms equipped with interactive panels. Flipped classroom methodology is also adopted to make teaching and learning process healthier using licenced Microsoft Teams. The lecture notes, and PowerPoint presentations are updated in LMS-MOODLE and MS Teams to keep the student updated even in his absence to the class. Institution motivates both students and faculty to register and learn from various MOOC platforms.

ICT tools and campus LAN are used widely to conduct laboratory experiments virtually. Industrial expert lectures from data base are used to train the students such that expertise in domain-based knowledge is gained through usage of such tools online. All faculty members are effectively using the available ICT enabled tools for effective implementation of teaching-learning process. Good number of faculty members are using learning material developed by them as well as SWAYAM, NPTEL, MIT OER, YouTube, Coursera. SWAYAMPRABHA DTH Channels are available to strengthen the teaching-learning. A media centre is established to develop learning materials in the form of e-content.

The Central Library of our institution is also equipped with ICT tools. Digital library provides facilities to access e-resources, e-journal articles, e-books from any place, and OPAC to check the catalogue of library resources.

File Description	Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response: 18:1

2.3.3.1 **Number of mentors**

Response: 211

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	[View Document](#)
Circulars pertaining to assigning mentors to mentees	[View Document](#)
Any additional information	[View Document](#)

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

Response:

The Institution follows a well-planned academic calendar which is given by College Advisory Board (CAB) members. The academic calendar is prepared with minimum number of working days, duly taking the national & public holidays, festival breaks, summer vacation, in addition to the college fests, training programmes, and placement activities into cognizance. The academic calendar provides adequate balance between academic and non-academic activities, teaching, and examination schedule. The academic calendar is approved by the Academic Council. Then calendar is uploaded in the institution website, and communicated through the webmail to all the relevant functionaries for adherence.

Every faculty member prepares a 'Lesson Plan' for every course as per academic calendar and it is uploaded in the website at the beginning of the semester and is duly approved by the Head of the department. Respective faculty prepare teaching plans as a part of their course files keeping the following points in view

- Course Objectives and Outcomes
- COs-POs & PSOs Articulation Matrix
- Syllabus content to be delivered
- Time allotment
- Teaching methodologies
- Assessment tools

- Cognitive levels of learning
- Content beyond the syllabus

Review and Monitoring :

- Course coordinators undertake an intense review in relevant courses
- Module coordinators take up a conceptual review related to delivery and assessment of different courses in tune with the respective modules
- Programme coordinators take up a comprehensive review
- Academic Audit is carried out twice in a semester
- Head of the Department, Dean-Academics and IQAC-Coordinator are vested with the authority to seek any clarification from any of the functionaries in the process and suggest any modification at any point in the process and the required modifications are by the respective members of faculty.
- Moreover, at the beginning of academic year, every programme coordinator prepares the calendar of academic events like workshops, conferences, guest lectures, industrial visits, FDPs, seminars and webinars. Action Taken Reports on above activities are prepared and submitted to IQAC.
- The institution strictly adheres to the academic calendar, except at unforeseen circumstances without prejudice to the overall deadlines and some of the important items as a part of the academic/activity calendar of the college is permitted subjected to the approval in the CAB meeting chaired by the principal.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	[View Document](#)
Link for Additional Information	[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: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	[View Document](#)
List of the faculty members authenticated by the Head of HEI	[View Document](#)
Link for Additional Information	[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: 22.16

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

2019-20	2018-19	2017-18	2016-17	2015-16
69	68	59	45	36

File Description	Document
Institutional data in prescribed format (Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for 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: 7.15

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

Response: 1652

File Description	Document
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.5 Evaluation Process and Reforms

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

Response: 14.8

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

2019-20	2018-19	2017-18	2016-17	2015-16
12	13	15	17	17

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response: 12.2

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

2019-20	2018-19	2017-18	2016-17	2015-16
365	296	375	490	767

File Description	Document
Number of complaints and total number of students appeared year wise	View Document

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

Response:

Examination reforms by the institution keeps its examination system open for modifications to strengthen it from time to time, to make the system fool proof. It also, address the grievances of students, if any. The institutional reforms activities keep the examination system at par with the examination reforms by AICTE.

The following significant reforms are implemented in the Examination Management System (EMS).

- Examination schedules are prepared by adhering to institution academic calendar.
- In continuous assessment, a couple of midterm examinations, and assignments are conducted as per the schedules.
- The marks obtained by the students are posted in ERP(i-Campus) and it is made visible to both students and parents.
- All the permissible pre-examination and post-examination tasks have been integrated with

Examination Management System using ERP. The college has been involving electronic processes in publishing the examination schedules in the college website, preparing database of eligible candidates, conducting examinations on pre-printed bar-coded and OMR answer booklets, and post-examination task- declaration of results, and issue of grade cards.

- The question paper for the Semester End Examinations (SEE) is also set by external members from premier institution. Enough care is taken to ensure the questions are standard, and from the syllabus with appropriate Bloom's Taxonomy.
- Special squad team comprises of internal faculty to take prompt actions by against malpractices, if any. Additionally, scriber for the Physically Challenged students is arranged as per norms.

Reforms	Positive Impacts
Four Sets of question papers are prepared for each course in SEE	- Confidentiality in the question paper selection. - Prevention of question paper leakage.
Preparation of detailed scheme of evaluation by internal subject experts	- Uniformity in the evaluation among the evaluators
Initiation of flying squad team consisting of senior faculty members	- Strict vigilance for smooth conduct of examinations. - Eliminates the possibilities of use of unfair means by students.
Inclusion of CCTV cameras	- Identifies the entry of un-authorised persons into the examination section. - Continuous monitoring of activities of examination section and spot evaluation process.
Implementation of RFID locking system	- Prevents the entry of un-authorised persons into the examination section. - Improved security to the examination management system.
Establishment of spot evaluation centre	- Confidentiality and custody of answer scripts are ensured.
Chief examiner in the evaluation	- Ensures the uniform evaluation among the valuers.
Inclusion of security features in grade cards	- Chances of manipulations are nullified.
Inclusion of OMR booklet with barcode	- Data processing has become more accurate. - Absolutely no human error - Reliable & no scope for manipulation.
Complete Automation of Examination Management System	- Considerable improvement in the speed, reliability, security, transparency, and confidentiality in the entir

- examination process.
- Declaration of results at the earliest.
- Students and Parents can view the results.

Examination Management System (EMS)

- Dedicated server with standby
- RFID locking
- Protected server with firewall security
- Authorised access to the Controller of Examinations
- CCTV surveillance

Continuous Internal Assessment on the examination management system:

An internal Examination Committee (EC) headed by Principal is constituted to monitor the activities of examination section continuously for effective and smooth functioning.

File Description	Document
Any additional information	[View Document](#)
Link for 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 Programme outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs) of all the programs offered by the institution are framed through discussion with course instructor, Course Coordinator, Module Coordinator, Program Assessment Committee (PAC), Department Academic Committee (DAC) and finally approved in BoS meetings. The COs are in line with POs & PSOs of the department.

The COs are published in academic regulations and curriculum book, and departmental website. They are made reachable to all the stakeholders of the program through institution website, faculty workshops, student awareness workshops, student induction programs and faculty meetings. The POs and PSOs are

achieved through a curriculum that offers a number of courses. Each course has a defined set of COs that are mapped to the POs & PSOs. A set of performance criteria are used to provide a quantitative measurement of how well COs are achieved. The COs are thus directly and quantitatively assessed, and in turn contribute for attainment of POs and PSOs. Therefore, if the course outcomes are attained, it provides direct quantitative evidence that POs and PSOs are attained.

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

File Description	Document
Upload COs for all courses (exemplars from Glossary)	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response:

The following processes & tools are used for the attainment of course outcomes.

Mid Examinations-This type of performance assessment is carried out during the examination sessions which are held twice a semester. Each and every exam is focused in attaining the course outcomes.

Quiz examination-This type of performance assessment is carried out during the examination sessions which are held twice a semester.

Semester End Examination-Semester End examination is a metric for assessing whether all the COs are attained or not. Examination is more focused on attainment of course outcomes and program outcomes using a descriptive exam.

Assignment-Each and every student is assigned with course related tasks during every course work and assessment will be done based on their performance. Grades/Marks are assigned depending on their innovation in solving/deriving the problems.

Rubrics are formulated for the assessment of laboratory, mini project, major project, seminar and internship courses.

The expected target level of course outcomes is set by PAC at the beginning of the semester based on the cognitive level of CO/the past COs attainment record/student performance in the previous semesters.

The performance of the students in the examinations (Mid-Semester, Assignment /Quiz & Semester End Examinations) during the semester in each course is used to compute the level of direct attainment of the COs.

Threshold value is taken as either class average mark or 60% of the marks allocated to the question whichever is maximum.

Attainment of Program Outcomes and Program Specific Outcomes:

List of assessment tools & processes

a) Direct assessment:

The performance of the students in the examinations during the semester in each course is used to compute the level of attainment of the POs and PSOs through the mapping of questions to COs and COs to POs and PSOs. CO-PO & PSO mapping (1(Slight), 2 (Moderate) and 3 (Substantial) for all the courses in the program are prepared by Module Coordinator Committee (MCC) and approved in the Department Academic Committee (DAC). An Excel sheet is used to compute the level of attainment of the POs and PSOs.

b) Indirect assessment:

The following indirect assessment tools are used for calculating PO & PSO attainments.

- Programme exit survey
- Student portfolio which includes student performance in Co-curricular activities, extra curricular activities, placements & higher studies and Extension activities.

The overall PO & PSO attainments are calculated by considering 70% of direct attainment and 30% of indirect attainment through surveys. Out of 30% of indirect attainment, 10% weightage is given for program exit survey and 20% for student portfolio.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 95.8

2.6.3.1 **Total number of final year students who passed the examination conducted by Institution.**

Response: 1004

2.6.3.2 **Total number of final year students who appeared for the examination conducted by the Institution.**

Response: 1048

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	
Any additional information	
Link for the annual report	

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 3.68

File Description	Document
Upload database of all currently enrolled students	
Link for any additional information	

04-01-2022 04:20:23

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

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

Response:

The institution has a well-defined R&D Policy in place to promote research by the faculty and students in tune with the requirements of the corporate world. The institution provides all necessary infrastructural facilities and a conducive environment to promote research activity in the campus. To enhance the research activities, Faculty are encouraged to apply for various funding agencies with industry collaboration and to pursue their research for any product development. However, the institution is ready to provide seed funding or partial funding based on the merit of proposals submitted by faculty or students. The faculty and students are encouraged to present their ideas / project proposals before the research committee for getting the sanction of seed funding in accordance with institution guidelines.

The faculty and students are given freedom to choose the research area of their choice and guidance is given to seek funding from various funding agencies and industries. The institution encourages the faculty by providing incentives for peer reviewed publications, writing books, and patents.

A thorough review is done for all research proposals seeking funding from various funding agencies by consulting the research committee comprising the Dean R&D, Head of respective department and subject expert(s) of the department. This committee also monitors the impact of research and consultancy and ensures non-violation of research & consultancy ethics, professional ethics, privacy of the people, human rights, causing problems to health & safety of human beings and damage to property before selecting the proposal. On completion of such research project the institution gives a free hand to report research results and findings of any researcher.

Research Centres and Advanced laboratories are established in various departments of the institution with necessary software and computing facilities for carrying out research activities. Four Research Centres of our institution are recognized by the affiliated university JNTUK, Kakinada to facilitate research and guide the PhD scholars.

The institution governing body reviews the complete research activity and takes the required budget allocation to upgrade the research facilities as well as other research policy decisions every year.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View Document
URL of Policy document on promotion of research uploaded on website	View Document

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 0

3.1.2.1 **The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Minutes of the relevant bodies of the Institution	[View Document](#)
List of teachers receiving grant and details of grant received	[View Document](#)
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	[View Document](#)
Any additional information	[View Document](#)

3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years

Response: 0

3.1.3.1 **The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
List of teachers and their international fellowship details	[View Document](#)

3.2 Resource Mobilization for Research

3.2.1 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: 187.13

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

2019-20	2018-19	2017-18	2016-17	2015-16
56.54	7.496	19.9	62.5	40.69

File Description	Document
List of project and grant details	[View Document]()
e-copies of the grant award letters for research projects sponsored by government and non-government	[View Document]()

3.2.2 Percentage of teachers having research projects during the last five years

Response: 2.39

3.2.2.1 **Number of teachers having research projects during the last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
11	7	6	3	3

File Description	Document
Names of teachers having research projects	[View Document]()
Link for additional information	[View Document]()

3.2.3 Percentage of teachers recognised as research guides

Response: 14.72

3.2.3.1 **Number of teachers recognized as research guides**

Response: 34

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	[View Document](#)
Link for additional information	[View Document](#)

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years

Response: 46

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

2019-20	2018-19	2017-18	2016-17	2015-16
7	5	5	3	3

3.2.4.2 **Number of departments offering academic programes**

2019-20	2018-19	2017-18	2016-17	2015-16
10	10	10	10	10

File Description	Document
Supporting document from Funding Agency	[View Document](#)
List of research projects and funding details	[View Document](#)

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.

Response:

Eco System for Innovation

The institution has undertaken a comprehensive approach towards promotion of innovation, incubation, and entrepreneurship. While identifying the need for a concerted strategy, the institution realized that not just fragmented endeavours, but a pragmatic eco-system needs to be developed. The manifestation of such

eco-system at our institution is as follows.

1. Incubation and Start-up Policy

An Incubation & Start-up Policy is in place that facilitates students and faculty to carry out innovation activities pertaining to the remarkable technological developments by supporting them with suitable needs such as patent filing, commercialization of prototypes, start-ups etc.

2. Resources

Centre for Innovation, Incubation and Entrepreneurship (CIIE) is established with required facilities. The Institution is nurturing the innovation with a financial support up to 50% to students. Institution encourages the faculty and students to protect their Intellectual property Rights (IPR) by providing facilitates and financial support.

CIIE has been recognized by IIC in Nov. 2018 and the institution obtained Two-star rating in 2018-19 and Three-star rating in 2019-20 for activities undertaken as per IIC calendar.

R&D Cell has been actively engaging the faculty and students to carry out research in cutting-edge technologies by establishing advanced research labs in addition to four JNTUK recognized research centres. The institution has been making the seed money available for the faculty to undertake Innovative projects with relevant material resources.

3. Collaboration

Collaborations have been established with the following:

- Atal Incubation Centre, S.K. University, Anantapur.
- National Instruments
- DASSAULT Systems
- IISc, Bangalore
- IITB, Bombay
- CISCO
- European Centre for Mechatronics (ECM), Germany

Overall, the institution has 29 National/International MOUs to undertake collaborative activities for innovation, incubation, IPRs and Consultancy.

4. Activities

- Mini Projects/PAL/PBL and Major Projects have embedded the innovation as nucleus of the curriculum.
- Every year Innovative and entrepreneurship activities including Hackathons, Idea competitions (Ideation Fest), Awareness workshops on IPR and Cognitive and Critical thinking, Leadership Talks, etc. are conducted as per guidelines of Innovation cell, MHRD.
- The institution encourages the students to participate in Regional and National level Idea competitions conducted by the recognized bodies and institutions of reputation.

5. Outcomes

The sustained efforts have resulted in the following accomplishments

1. Mr. Sai Jaykrishna, IV EEE launched his first Start-Up "CHOAS Electronics" with LLP No.AAV-7667 has been registered under CIIE.
2. 03 innovation awards received from external agencies
3. 815 Publications in indexed journals, 20 Patents, and 82 Books/Chapters have been published in the last Five academic years.

File Description	Document
Paste link for additional information	[View Document](#)

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development during the last five years.

Response: 111

3.3.2.1 **Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
34	25	23	18	11

File Description	Document
Report of the event	[View Document](#)
List of workshops/seminars during last 5 years	[View Document](#)

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

Response: A. All of the above

File Description	Document
Any additional information	[View Document](#)
Link for additional information	[View Document](#)

3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/ supervisors provided at 3.2.3 metric) during the last five years

Response: 2

3.4.2.1 How many Ph.Ds are registered within last 5 years

Response: 68

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

Response: 34

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	[View Document](#)
URL to the research page on HEI web site	[View Document](#)

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

Response: 2.22

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

2019-20	2018-19	2017-18	2016-17	2015-16
345	98	47	37	29

File Description	Document
List of research papers by title, author, department, name and year of publication	[View Document](#)

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

Response: 0.21

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

2019-20	2018-19	2017-18	2016-17	2015-16
13	15	19	3	2

File Description	Document
List books and chapters in edited volumes / books published	View Document

3.4.5 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

Response: 3.43

File Description	Document
Bibliometrics of the publications during the last five years	View Document

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

Response: 13.5

File Description	Document
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document

3.5 Consultancy

3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 5.89

3.5.1.1 **Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).**

2019-20	2018-19	2017-18	2016-17	2015-16
0.0412	1.91214	1.60728	1.19500	1.13500

File Description	Document
List of consultants and revenue generated by them	<u>View Document</u>
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	<u>View Document</u>

3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

Response: 1617.71

3.5.2.1 **Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)**

2019-20	2018-19	2017-18	2016-17	2015-16
315.07	331.76	311.83	327.14	331.91

File Description	Document
List of facilities and staff available for undertaking consultancy	<u>View Document</u>
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	<u>View Document</u>

3.6 Extension Activities

3.6.1 Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development, and impact thereof during the last five years

Response:

The institution envisions a close and shared bonding with the neighbourhood community through a network of activities and services for its socio-economic development. Our students receive the best training in social service and community engagement through the initiatives of our NSS unit. The institution promotes regular engagement of students, faculty and supporting staff with the neighbourhood community for a holistic and sustained community development through various activities listed below.

1. **Advancement in Technology Activities**

- **ISRO World Space week celebrations**

- It is a collaborative activity with ISRO, Sriharikota to motivate the young minds towards the Space technologies. The exhibition which depicted Rockets, Satellites, etc. was visited by about 10,000 school students, citizens and our institution students.
- **Rural Women skill improvement through PMKVY**
- **Engineers' Day Celebration**
- **Sensitization Programs on specific Technologies**
- **Computer Training for School Teachers and students**
- **Awareness program on Digital Transactions**
- **Career Guidance Programs for school students**
- **Special programs for reducing school dropouts in the adopted villages**

Sensitization: Through such events, students as well as the community people gain richer insights into pressing socio-economic, education that are so critical for sustainable development and become eco-friendly with technology adoption.

1. **Social and Community Service Activities**

- **PushkaraSeva in association with Government of AP** during Krishna Pushkaralu with participation of 515 students who served lakhs of devotees.
- **Blood donation and Free Medical camps** organized by NSS and NCC units of the institution in association with Indian Red Cross benefitted the needy and underprivileged.
- **Establishment of Water kiosk for public**
- **Sivarathri Festival Celebrations**
- **Voluntary Service at Devotional Programs/Govt.Programs**
- **Distribution of Dental Kits/Medicines**
- **Distribution of Exam Kits to SSC Students**

Sensitization: These service activities have made the students understand practical problems of the common people in society and enhance social empathy among them. Such programmes helped our students to become more sensitive and responsive to the societal needs.

3.Public Health and Safety Activities

- Awareness program on women safety(DISHA App - Govt.of A.P)
- Health Awareness Programs
- Awareness on Road safety and traffic rules
- Awareness on Open Defecation Free Village
- Swachh Sarvekshan
- Janma Bhoomi-Ma vuru
- Awareness on Fire Safety Measures
- Awareness Program on Anti-Ragging

Sensitization: These events helped our students to understand the value of civic sense, public morality, optimum utilization of resources, good traffic sense, public safety and ethical living.

4. Environmental Protection Activities

- **Swachh Bharat, plantation and Eco-friendly Clay Ganesh idol** distribution

- Awareness on Agri-Farming to farmers
- Jal Shakti Abayan
- World Ozone week celebrations
- Wellbeing out of Waste
- Distribution of paper and Jute bags
- Distribution of saplings

Sensitization: These events create an awareness on healthy environment, cleanliness, and sanitation practices, besides highlighting the values of plantation, environmental protection for reducing land, water and air pollutions.

5. Adopting Village Activities

To discharge its sacrosanct duty towards the socio-economic betterment of the neighbourhood community, the institution has a policy of adopting one nearby village every year. The institute promotes regular engagement of students, faculty and supporting staff with the neighbourhood community for holistic and sustained community development.

File Description	Document
Paste link for additional information	[View Document](#)

3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

Response: 272

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

2019-20	2018-19	2017-18	2016-17	2015-16
98	67	90	16	1

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

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

Response: 172

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

2019-20	2018-19	2017-18	2016-17	2015-16
48	37	40	25	22

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](#)

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 19.91

3.6.4.1 **Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
987	950	879	564	456

File Description	Document
Reports of the event	[View Document](#)
Average percentage of students participating in extension activities with Govt or NGO etc	[View Document](#)
Any additional information	[View Document](#)

3.7 Collaboration

3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Response: 0

3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document

3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 18

3.7.2.1 **Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
4	2	7	2	3

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

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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:

The following physical facilities are available for teaching-learning in LBRCE:

The college has adequate number of classrooms and laboratories as per norms of UGC and AICTE for effective implementation of the teaching-learning process. Further, every department is equipped with its own computing resources as well as departmental library. The Departments have required as well as specialized software in their laboratories. In addition to the above, the college has a Central Library including a Digital Library which is well equipped with many learning resources. The library server is an added advantage for the faculty and students in terms of storage of learning material and accessibility.

The college has auditoriums "Dr. A.P.J. Abdhul Kalam Hall" and "Dr. Sarvepalli Radhakrishnan Hall" in addition to the department seminar halls. All seminar halls are ICT enabled with interactive panels. All computing facilities in all departments meet the required curriculum requirements in terms of software and number. Moreover, the institution has established 09 advanced laboratories which are listed below.

- CMs Skill Development Centre
- Dassault Systems
- Applied Robotic Control Lab
- ANSYS Skill Development Centre
- CISCO Networking Academy
- Green Energy Technology Centre
- MEMS Centre
- National Instruments Centre of Excellence and Lab View academy
- E-YANTRA Lab

Computing and ICT Facilities

The college has provided more than 1300 computers and 150 laptops distributed over all the departments for day-to-day usage. Laptops are made available for faculty members with additional responsibilities. Reprographic facilities are made available wherever necessary.

Each department is provided with one Smart Classroom, one Interactive panel. All classrooms are provided with necessary ICT facilities for effective implementation of Teaching-Learning. Digital display systems are made available in each block. Internet is provided for all the departments and computer centres with 1160 Mbps bandwidth. Software necessary for the preparation of computer-aided teaching material by the faculty is also made available. A centralized media centre facility is also added for preparation of learning material and e-content for the benefit of students.

File Description	Document
Paste link for additional information	

4.1.2 The institution has adequate facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)

Response:

With the availability of 09 acres of land physical education department has arranged facilities for playgrounds, outdoor stadium, and indoor stadium. At present all these facilities are adequate for conducting outdoor as well as indoor games for both boys and girls. The institution hosts inter University zonal tournaments regularly on campus. A well-qualified Physical Director with support staff, trains the students in both indoor and outdoor games.

Outdoor sports facilities

- Two badminton courts with size 17mX16.30m are prepared in the year 2003 @30 users per day.
- A Basketball court with size 32.65mX17.20m is prepared in the year 2003 @24 users per day
- Two volleyball courts with size 38mX40m mare prepared in the year 2002 @48 users per day.
- Kabaddi court with size 15mX12m is prepared in the year 2002 @48 users per day.
- Football field with size 100mX60m is prepared in the year 2002 @40 users per day.
- Ball badminton court with size 34mX15m is prepared in the year 2004 @30 users per day.
- Cricket nets with size 18mX7.50m are prepared in the year 2003 @48 users per day.
- Kho-Kho court with the size 50mX40m is prepared in the year 2010 @36 users per day.
- Throwball, Volleyball and Badminton(Girls) with size 36mX50m are prepared near mechanical block in the year 2003 @40 users per day.

- Three badminton courts with the size 59mX8m are prepared in the year 2018 @36 users per day.
- Throwball, and Volleyball with size 63mX45m are prepared for girls at the Girls hostel in the year 2018 @60 users per day.
- Throwball, Volleyball, Ball-Badminton, Kho-Kho, Kabbadi, 200 m running track, Shot Put sector, Discus sector and Javelin courts with size 200mX65m are prepared   at the Girls hostel in the year 2019 @90 users per day .
- Indoor facilities such as carroms(07 boards) and table tennis(02 boards) with size of 12.2m X11m are prepared in the year 2004   @60 users per day.

Indoor games facilities:

- Four Badminton courts/Two volley ball courts/1 Basketball /Gymnastics with size of 30m*40m*12m are prepared in the year 2004 @90 users per day.

- A well-equipped 24-station modern Gymnasium with size of 14m*8m is created in 2011 @80 users per day. All the required equipment is made available.

Yoga, Meditation Centre, and Cultural activities:

- Full-time yoga master is available for yoga training
- A 60-capacity auditorium is provided for Yoga and Meditation.
- Yoga certification course is added as a mandatory course in the curriculum
- International Yoga Day is celebrated every year with major participation from students and Staff.

Kruthi-the fine arts and Cultural club is established to promote cultural activities in the campus. This Club encourages students to participate in District, State, National level, Inter Collegiate and Inter University level cultural festivals. LAKSHYA- a national level Technical and Cultural fest is conducted every year with participation of students from other institutions within as well as outside the state. As part of annual day celebrations, various cultural activities are also organized under the auspices of this club.

File Description	Document
Upload any additional information	[View Document](#)
Geotagged pictures	[View Document](#)
Paste link for 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: 76.71

4.1.3.1 **Number of classrooms and seminar halls with ICT facilities**

Response: 56

File Description	Document
Institutional data in prescribed format	[View Document](#)
Paste link for additional information	[View Document](#)

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

Response: 72.8

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

2019-20	2018-19	2017-18	2016-17	2015-16
321.57	616.9	669.69	740.2	577.01

File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	[View Document](#)
Upload audited utilization statements	[View Document](#)
Link for any additional information	[View Document](#)

4.2 Library as a Learning Resource

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

Response:

The Library has a spacious built-up area of 2025.32 Sqm, with a seating capacity for 500 users. The library personnel include a qualified Librarian, Assistants and supporting staff. The library operates on all working days from 08:00 AM to 08:00 PM and on the holidays from 09:00 AM to 01:00 PM.

The library has 54100 volumes with 12114 titles of books and about 3400 back volumes of scientific and technical periodicals. The library also subscribes to nearly 115 National journals and 45 magazines and more than 6800 e-journals. A separate reference section is maintained with Handbooks and General-knowledge books. Inter-library loan facility is available through DELNET. Central Library supports departmental libraries in all departments. The library follows open access system encouraging the user to browse freely in the stack area.

Library is fully automated using the following Integrated Library Management System:

Name of the ILMS software: ERP

Nature of automation (fully or partially): Fully

Version: 2018

Year of automation: 2005&2018

Online Public Access Catalogue (OPAC) is available for remote access.

Library automation is implemented in a phased manner, the details of which are given below:

The central library is operating on an Integrated Library Management System since 2018, while Volk Soft Technologies Integrated Library Management System was in use till that time.

The ERP software is integrated with Library Management system that is designed and developed by D–Base solutions. This user-friendly software is developed to work under client–server environment. This software is suitable for bibliographic formats and circulation protocols. The modules included in LMS with menu driven facilities are **Circulation, WEB-OPAC, Administration, Catalogue, Member Login/Logout.**

CIRCULATION:

This module facilitates Membership, Transaction, Overdue charges, Reminders. Maintenance of the items such as binding, lost, replace, missing, and withdrawal are also provided in report generation.

WEB -OPAC:

WEB-OPAC facilitates remote access to users. They can retrieve the status of his/her account, such as due date, number of titles borrowed and overdue charges.

ADMINISTRATION:

The administration module includes the features of grouping of users based on the policy, transactional rights over the ILMS, transaction level security to users, various configuration settings such as labels, e-mail and other parameters related to the software use, and common master databases.

CATALOGUE:

This module is used for retrospective conversion of library resources. The salient feature of this module is to retrieve information such as corporate body, subject headings and series name.

MEMBER LOGIN/LOGOUT:

ERP software integrate log-in and log-out facilities to authenticate attendance in library for members with bar-coding option. It is possible to generate log reports according to date, month, and year.

DIGITAL LIBRARY:

- The institution has a digital library with 40 computers in the central library and is accessed from any department through campus LAN.
- It has a reasonably good collection of e-journals like IEEE, ASCE, ASME, SPRINGER, ELSEVIER, DELNET and N-List e-books.
- NPTEL videos, e-books, GATE papers, Old question papers, and e-journal articles are available in the digital library for easy access.

File Description	Document
Paste Link for additional information	View Document

4.2.2 Institution has access to the following: 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](#)
Institutional data in prescribed format	[View Document](#)
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	[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: 25.87

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)**

2019-20	2018-19	2017-18	2016-17	2015-16
27.59	31.08	30.34	27.55	12.81

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	[View Document](#)
Audited statements of accounts	[View Document](#)
Any additional information	[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: 18.34

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

Response: 756

File Description	Document
Details of library usage by teachers and students	[View Document](#)

4.3 IT Infrastructure

4.3.1 *Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating*

its IT facilities

Response:

The institute has an IT policy in place which specifies clearly about the procedures to be adopted for all IT facilities that are made available in the campus. Adequate budget allocations are made regularly to establish, maintain, and upgrade these IT facilities. IT facilities include computing systems, Wi-Fi systems, cyber-security, intranet, internet, and all other software necessary for handling these systems as well as support systems like website, campus management software, library information system, MOOCs, CCTVs, biometric devices, Learning Management System (LMS), online assessments, access to online learning resources.

The details of upgradations that have taken place over the last five years (2015-16 to

2019-20) are described below:

- Procured more than 1300 desktop computers in the last five years, among which more than 100 Desktops and 40 Laptops (procured in the years 2019-20) are with the latest core i5 processor, 4/2 GB graphic cards, 8 GB RAM 1 TB HDD and other resources of higher end. In addition, 9 servers and 3 workstations are also procured.

- Replaced 25 basic network switches to CISCO Non manageable L2 switches in 2018.
- 92 Wi-Fi access points are added to the existing 82 points, to supplement the campus network with wireless access facility. Two Wi-Fi controllers are also added to manage these access points.
- Improved internet bandwidth from 220 Mbps in 2015-16 to 760 Mbps in 2019-20 through multiple lines.
- The Microsoft campus license agreement is renewed regularly.
- Replaced existing biometric attendance system (Bio-enable) in 2019 with 8 devices with licensed reporting software.
- Upgraded RAM from 4 GB to 8 GB for 75 desktops.
- Procured 98 LCD projectors in last five years for classrooms, seminar halls, conference halls and laboratories.
- 6 digital signage displays are placed all over the campus in 2018-19 to display and disseminate information to student community on time.
- The institute has arranged for 6 smart classrooms equipped with smart interactive boards in 2019-20.
- Electronic surveillance system with 150 cameras is deployed in the campus in 2018-19.
- The ERP software is upgraded in 2018-19 to add more facilities for students like online payments and unified software to manage entire campus academic workflow.
- A learning management system based on MOODLE framework is deployed in 2015-16 to facilitate asynchronous interaction beyond classroom.
- The college website lbrce.ac.in is upgraded with latest Content Management System (CMS) to facilitate easy updating.
- The entire network is protected using SOPHOS firewall.
- The server room is equipped with power backup and standby facilities.

Adequate budget allocations are made for these upgradations as and when required in the span of previous five years.

File Description	Document
Paste link for additional information	[View Document](#)

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

Response: 5.19

File Description	Document
Student - computer ratio	[View Document](#)

4.3.3 Bandwidth of internet connection in the Institution.

Response: ?50 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	[View Document](#)

4.3.4 Institution has the following Facilities for e-content development

1. **Media centre**
2. **Audio visual centre**
3. **Lecture Capturing System(LCS)**
4. **Mixing equipments and softwares for editing**

Response: B. 3 of the above

File Description	Document
Upload Additional information	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Link for Additional information	[View Document](#)

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Response: 99.8

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

2019-20	2018-19	2017-18	2016-17	2015-16
987.10	856.14	765.18	657.19	643.19

File Description	Document
Upload any additional information	[View Document](#)
Details about assigned budget and expenditure on physical facilities and academic facilities	[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:

The institution has a well-defined maintenance policy which specifies procedures for maintaining physical, academic and support facilities.

The institution has established a maintenance section with adequate staff. This section takes care of maintenance of infrastructural facilities which includes plumbing, electrical, carpentry, masonry and sewage maintenance requirements. The section receives requests for maintenance from the departments and other sections and accordingly undertakes the necessary maintenance work.

As per maintenance policy a common procedure is as following:

- Any problem that occurs in a department is represented to the maintenance supervisor through a letter/mail.
- The supervisor deputes a skilled person/technician to attend to the specific problem.
- The skilled person will resolve the problem on site if no additional material is required. In case of material requirement, it is received from the maintenance section or central store through proper request.
- If the material is to be procured from outside, permission is to be obtained from the purchase committee on recommendation of maintenance supervisor.
- Annual stock verification is conducted every year and the status of furniture, lab equipment, stationery, ICT facilities, Library, sports items and all other assets is collected. All the items usable are accordingly repaired and maintained.
- While purchasing any new equipment the terms of Annual Maintenance Contract (AMC) are also taken into consideration before deciding the purchase.

The maintenance aspects of different types of facilities are described below:

1. **ACADEMIC FACILITIES:**

Laboratories:

The maintenance and repair of equipment is done by the respective departments with the help of technical assistants and services of external agencies are also hired if required.

- Each department of the institute carries out the calibration and maintenance of the measuring instruments periodically.

- All other equipment in the laboratories is maintained regularly.
- The in-house maintenance and repairs are addressed by the respective department technicians who are qualified and trained.
- Major problems and repairs will be attended in consultation with the suppliers following the central purchase procedure.

Class Rooms:

- Every department has a faculty in-charge who will periodically check the condition of classroom amenities like benches, chairs, black boards, fans, lights and ICT facilities.
- The in-charge will resolve the problem through the Head of the Department following the internal operating procedure.

Library:

- The maintenance of library is taken care by Librarian and his supporting staff. Internal periodic audits are done in the library for maintaining wellness of the books. Frequent interactions are made by the librarian with the students and faculty to know the short falls and take necessary action to overcome them.
- Library committee is vested with responsibility of scheduling and coordinating all the maintenance activities of the library.

Computer and ICT Facilities:

- Institution has established systems maintenance section headed by Professor who is given responsibility of maintaining of computer and ICT facilities.

- All computers in the institute premises have been connected by LAN. The systems section maintains the firewall, LAN connectivity, Campus Wi-Fi and internet connectivity throughout the institute. Maintenance of computer systems is carried out by technical assistants of the respective department. If the department is not able to resolve the issue, the problem is referred to technician. In case the problem persists, the same is referred to the outside vendor. The functioning of college intranet and internet facility is monitored and maintained by the hardware technicians in association with Network administrator.
- Fiber Optic cable issues are maintained with the support from vendor.
- Any upgradations or modification of the existing Network Model is carried out by inviting quotations from external agencies by following the central purchase procedure.

1. **Maintenance of Infrastructure:**

Building Maintenance:

- Building maintenance includes civil work modifications, civil repairs in buildings, other repairs and maintenance of internal roads, plumbing, pest control, colouring and painting for structures. It also monitors housekeeping, cleaning of water tanks, and sanitary arrangements. Small repairs and maintenance are carried in-house whereas contractor services are obtained for major maintenance requirements.

- Annual inspection is done for Fire Safety by AP state Disaster Response, and Fire Service Department and issues fire safety certificate.

Electrical Systems Maintenance:

- Monthly monitoring of electrical systems such as solar PV system, generator, UPS, and batteries is done and its status is entered in the Log/Stock Book. The suppliers/service providers are approached in case of any major fault.
- Major electrical equipment is covered under Annual Maintenance Contract (AMC) by the suppliers.
- Adequate number of UPS are installed in each department to ensure uninterrupted power supply for all computers.
- Technicians are available as part of maintenance section to maintain refrigeration and air conditioning systems.

Furniture Maintenance:

- Furniture maintenance includes customized fabrication of cabinets, desks, counter tops, installation of doors and windows, and concerned supporting staff attends to all repairs and maintenance.
- The internal operating procedures are followed for maintaining the furniture in the institution.

3. SPORTS AND GAMES FACILITIES:

- The indoor and outdoor stadiums, gymnasium, playgrounds, and all other sporting equipment are regularly supervised and maintained by the Physical Director with the help of supporting staff.

4. OTHER FACILITIES:

- The Institute has an RO plant, which provides 24 X 7 drinking water facility. Sufficient numbers of water coolers are available in the departments to provide clean drinking water. Periodically the quality of water is tested in the Environmental Engineering laboratory.
- One faculty member is nominated as transport in-charge to supervise and maintain all transport facilities of the institution with the help of supporting staff.
- Adequate manpower is employed to maintain cleanliness of the campus, Classrooms, Staff rooms, Seminar halls and Laboratories, washrooms and rest rooms for good ambience.

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- The Green Cover of the campus is well maintained by full time gardeners as well as contractual labour.
- The campus security is monitored through surveillance Cameras and is maintained by a supplier under AMC.
- The college has Canteen facility where subsidized food is provided to staff and students. The maintenance of the canteen is the responsibility of canteen manager under the supervision of food committee.
- Central Bank of India branch is located inside the campus to facilitate transactions and the maintenance is taken care by the bank itself.

File Description	Document
Upload any additional information	View Document
Paste link for 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: 63.13

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)**

2019-20	2018-19	2017-18	2016-17	2015-16
2601	2470	2440	2363	2256

File Description	Document
upload self attested letter with the list of students sanctioned scholarships	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	[View Document](#)

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

Response: 3.4

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)**

2019-20	2018-19	2017-18	2016-17	2015-16
198	226	124	68	41

File Description	Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	[View Document](#)
Institutional data in prescribed format	[View Document](#)

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology

Response: A. All of the above

File Description	Document
Details of capability enhancement and development schemes	[View Document](#)
Link to Institutional website	[View Document](#)

5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Response: 100

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**

2019-20	2018-19	2017-18	2016-17	2015-16
3891	3848	3880	3843	3744

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

Response: A. All of the above

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	[View Document](#)

5.2 Student Progression

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

Response: 18.44

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

2019-20	2018-19	2017-18	2016-17	2015-16
198	176	210	176	190

File Description	Document
Upload any additional information	[View Document](#)
Self attested list of students placed	[View Document](#)
Details of student placement during the last five years	[View Document](#)

5.2.2 Percentage of student progression to higher education (previous graduating batch).

Response: 5.34

5.2.2.1 **Number of outgoing student progressing to higher education.**

Response: 55

File Description	Document
Upload supporting data for student/alumni	[View Document](#)
Details of student progression to higher education	[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: 68.31

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**

2019-20	2018-19	2017-18	2016-17	2015-16
70	79	64	84	88

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

2019-20	2018-19	2017-18	2016-17	2015-16
156	112	78	97	153

File Description	Document
Upload supporting data for student/alumni	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years	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: 60

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

2019-20	2018-19	2017-18	2016-17	2015-16
28	4	15	5	8

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

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

Response:

An active student council and representation of students on academic and administrative bodies is in place at our institution. The institution promotes value-based education for inculcating social responsibility and good citizenry among its student community. For this, the institution has put in place the necessary infrastructure and encourages active participation of the students in academic, social, and cultural activities. The institution believes that overall and holistic development is possible only with the participation of students in all spheres of activities. Keeping this in view as well as statutory recommendations of UGC, and AICTE, the institution has made adequate representation of students in specific cases as members. The role of student members in few specific cases are described in the following:

1. **Academic and Administrative Planning:**

- **Internal Quality Assurance Cell (IQAC):** It looks into various quality enhancement measures and has the representation of student members. Different academic and student development matters are discussed with the active participation of the student members.
- **Central Library:** The library committee consists of student representatives. Students are given an opportunity to discuss the requirements regarding the availabilities of digital content as well as reference books and accessibility factors. Other advancement related matters, and digital upgradations are undertaken in tune with the expectations of the students.
- **Class Review Committee:** Every class of the degree program shall have a class review committee, consisting of faculty and student members. For student members of class review committee, it gives an opportunity for modification of the content delivery, verification of assessments made, verification of syllabus coverage, and many such parameters which help better lesson plan implementation.

2. Anti – Ragging Committee: Student members representation in the Anti – Ragging committee helps the institution in making it ragging free. This committee is constituted as per the guidelines of the UGC with internal and external members. Those student members are encouraged to gather information in case of any ragging incidents if happen, and also publicize ragging prevention among other students.

3. Functioning related to career-oriented activities, College level Amenities & Facilities

- Student members are involved as T&P Coordinators for assisting the Placement Cell during the recruitment drives.

- Student members are involved in Canteen Committee in order to take feedback regarding the functions of the canteen pertaining to quality, cost, variety, and other such parameters.
- Student members are involved in the hostel committee to facilitate improvements in hostel facilities, improvements in food quality, regular maintenance of hostel equipment, and improving the overall ambiance of the hostel.

4. Units of Co-Curricular& Extra-Curricular planning & execution

- **LAKSHYA -** National level Techno-cultural fest is organized every year in which students take an active role in organizing various events, and coordinating all fete activities.
- Student members take an active part in presenting the technical exhibitions, department association activities, club activities, and student professional chapters activities.
- Student members are included in Editorial board of Departmental Newsletter, and Magazine.
- Student teams undertake all the coordination activities on Annual Day and Sports Day.
- Students have an active representation in NSS/NCC activities

File Description	Document
Paste link for Additional Information	[View Document](#)

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 4.2

5.3.3.1 **Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.**

2019-20	2018-19	2017-18	2016-17	2015-16
4	6	2	4	5

File Description	Document
Report of the event	[View Document](#)
Number of sports and cultural events / competitions organised per year	[View Document](#)

5.4 Alumni Engagement

5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

Response:

The Alumni Association of Lakireddy Bali Reddy College of Engineering (AALBRCE) is a registered society with registration number 154 on 28th April, 2006. The main objective is to enrol all alumni as members of the association and facilitate active participation of the alumni in appropriate activities, events, and extend help in initiatives taken by the institution. This is an official unit of the institution with the primary objective being an interface between LBRCE alumni and the institution there by creating a veritable platform to the entire LBRCE fraternity. The LBRCE is proud of its brilliant alumni who are currently positioned all over the globe and have distinguished themselves in all spheres of high-end engineering and technology. The AALBRCE also coordinates the networking of all the LBRCE alumni to create a single global LBRCE community for the benefit of our institution as well as current student community. The alumni-meet is organized every year in the month of February on second Saturday.

The financial contributions of AALBRCE are described below:

- Alumni contributed corpus fund is being utilized for student welfare and economically weaker sections
- Initiated a Scholarship programme "LBRCE SAHAYA". Under this programme, meritorious and economically poor students are being identified and selected in the third year of their Engineering programme. Each selected student is assisted with Rs.7,500/- for the preparation to any competitive examination. LBRCE SAHAYA scholarships started with 13 students during the academic year 2019-20.

The Academic and Professional Support contributions of AALBRCE are described below:

- Feedback is collected from the alumni to design regulations and update the curriculum accordingly.
- Board of Studies members nominated from alumni contribute towards curriculum content development in terms of present industry requirement.
- Feedback from the alumni helps the current students whenever recruitment drives are being conducted.
- Alumni members conduct mock interviews for current students which also helps them in placement.
- Career guidance and mentoring help is extended by many alumni.
- The alumni network of the institution helps in expanding placement opportunities for the students. Information on job opportunities in their companies is passed on by the alumni in time to the institution for appropriate training and placement activity.

File Description	Document
Link for additional information	[View Document](#)

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

Response: E. <2 Lakhs

File Description	Document
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 an effective leadership in tune with the vision and mission of the Institution

Response:

VISION

To empower the students to become technologically vibrant, innovative and emotionally matured; and to train them to face the challenges of the quality conscious globalized world economy.

MISSION

- To provide an environment most conducive to learning and to create a stimulating intellectual atmosphere in the campus.
- To achieve Academic Excellence.
- To ensure a holistic development of personality.
- To spread education to rural areas.
- To establish partnership between Institution & Industry.

The vision and mission statements define the institution distinctive characteristics in addressing the needs of stakeholders involved. In adherence to the above vision and mission as well as the norms of AICTE and UGC, college management has constituted a Governing body. All the members of the Governing Body participate actively, and with their extensive experience, and leadership skills contribute for growth and development of our institution.

Statutory committees like Boards of Studies, Academic Council, Finance Committee, and other non-statutory committees involving faculty are constituted to help the administration.

The College Advisory Board (CAB) with the principal as the chairperson, frames the rules and regulations under the guidance of the Governing body and Academic council of the institution.

Perspective Plans:

The Principal of the Institution, who is also a member of the Trust Board of the Institution, discusses the broad components of the Perspective Plan of the Institution and it is then finalized in consultation with the Governing Body. The Strategic Plan for the institution was developed in the year 2015 for a duration of 6 years.

Participation of the teachers in the decision-making bodies:

In the linear structure, Vice-Principal, Deans and Heads of the Department are next in the hierarchy. The Vice-Principal will assist the principal in administrative activities. The deans are senior Professors with significant authority over a specific academic unit or area of concern or both. They help the principal in implementing various administrative and academic processes and provide feedback and suggestions.

The HODs are next in hierarchy and are responsible for effective implementation of Teaching-Learning process and Curriculum development and all other day to day responsibilities of running the department.

The professors, Associate Professors, Assistant Professors are next in the hierarchy. All these members act as conveners of the non-statutory committees and assist the principal on routine administration and academic processes. Faculty plays a proactive role in the academic and administrative activities of the institution.

File Description	Document
Link for additional information	[View Document](#)

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

Response:

The institution practices participative management and decentralization in all activities with a balance between transparency and confidentiality. Each of the functionaries has specific roles and responsibilities confining to the policies of the institution.

Case study: Curriculum Design

The Institution follows the guidelines issued by the regulatory bodies such as UGC, AICTE, affiliated university JNTUK, Kakinada and Andhra Pradesh State Council of Higher Education (APSCHE) while designing the curriculum of all UG and PG programs offered by the institution. A series of all faculty meetings are conducted to decide about the specifications of the Course Outcomes (COs) and their corelation with specified Programme Outcomes (POs) and defined Programme Specific Outcomes (PSOs). The set of courses which require modifications (deletion/addition) are prepared and compared with programme curriculum adopted at other leading academic institutions in India and abroad. The curriculum design process of the institution is as follows.

a). Module Coordinator Committee (MCC)

MCC receives inputs on curriculum revision from Class review committee (CRC). The Module Coordinator committee prepares the content of all respective courses including new courses and change of course content.

b). Department Academic Committee (DAC)

It comprises of HOD and some senior faculty members of the department. The Program Coordinator initiates the curriculum design process by collecting the attainments of Course Outcomes, Program Outcomes and Program Specific Outcomes from the Program Assessment Committee (PAC). The inputs from various stakeholders such as Faculty, students, parents, Alumni and Employer will be considered for curriculum revision. DAC suggests the new and advanced courses to be introduced in the curriculum, establishment of new labs and skill upgradation facilities based on the requirement of the industry.

c). Board of Studies (BoS)

BoS comprises of senior Faculty of the department, members from Alumni, Industry, Academia, University nominee and functions with HOD as chairperson. It reviews and ratifies Course structure, curriculum and course content.

d). Academic Council (AC)

Academic Council comprises of HODs of all departments, Industry, Academia, University nominee, faculty nominated by principal and functions with principal as chairman. It discusses and ratifies the institution level all academic issues.

All the faculty members are actively involved in Teaching-Learning process implementation.

File Description	Document
Link for strategic plan and deployment documents on the website	[View Document](#)
Link for additional information	[View Document](#)

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

The institution has prepared a Strategic Plan in the year in 2018 for a duration of 5 years. The strategic goals of this Plan are classified into plans regarding

- Good governance
- Teaching-learning process
- Research and Development
- Internal Quality Assurance System through IQAC
- Institution – Industry Interaction
- Financial management
- Staff Development & Welfare
- Student Development and Participation
- Alumni Interaction
- Community Services and Extension Activities
- Accreditations and Rankings

An important plan is regarding student development and participation which is described below:

To impart the requisite technical knowledge and relevant skills the following practices are initiated and implemented.

- To disseminate adequate programming skills, a thorough training is arranged for the faculty members by E-BOX, WIPRO, CISCO, AWS and Blueprism. These trained faculty members are expected to impart necessary problem-solving skills to students in scheduled manner.
- Certification programs and trainings are arranged on emerging technologies through established skill development centres such as CM's Skill Excellence Centre-APSSDC, DASSAULT SYSTEMS-3DExperience Centre (CATIA Software) and ANSYS skill development centre, Applied Robot Control (ARC) Lab.
- Certification programs by external agencies are also arranged through Skill Development Centres established in the institution.
- Special training on programming skills on Code-Vita is arranged by internally trained faculty.
- The important technical aspects are emphasized by every teacher in the class room with more focus on conceptual clarity in all theoretical as well as practical aspects.
- Guest lectures and training programs related to latest technologic innovations are arranged for a good number of core subjects in every branch of engineering.
- Personality development programs and soft skill development classes are organized from time to time to improve soft skills of the students.

The implementation of the above plan resulted in the following.

- The highest package in the A.Y.2019-20 has been improved to 10LPA from 7LPA
- Placements in MNCs have been improved
- Quality of student projects has improved and resulted in publication by the supervisor and student members
- Two Start-ups have emerged in the Incubation Centre
- Innovation Awards are bagged by students as part of our CIIE activities
- Improvement in Online Certifications resulted in better ranking of NPTEL Local Chapter
- Student participation in extension activities resulted in our NSS Program Officer bagging the State level and University Level Awards
- 4(A) Bn NCC Girls wing activities resulted in participation of our student in Republic Day Parade at New Delhi.
- Student participation in Extra-Curricular and Cultural activities resulted in bagging the awards at State and University Level.
- Two of our students participated at an international event in Malaysia and bagged one Gold Medal.

File Description	Document
Link for Strategic Plan and deployment documents on the website	[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:

The Institution has a well-structured administrative setup. The governing body is the highest decision-making body, which gives constructive suggestions to the management for effective decision making in

line with the Vision, Mission of the institution. A suitable organogram is in place for deciding the administrative hierarchy of the institution.

Various statutory and non-statutory committees are constituted for implementing an orderly functioning of the Institution under the guidance of the Principal. Following are the Statutory and Non-Statutory committees of our institution.

STATUTORY BODIES

- Governing Body
- Academic Council
- Boards of Studies
- Finance Committee

NON-STATUTORY COMMITTEES

- Planning and Evaluation Committee
- Grievance and Redressal Committee
- Examination Committee
- Admission Committee
- Library Committee
- Internal Complaints Committee
- Student Council and Welfare
- Sports and Games Committee
- Academic Audit Committee
- Anti-Ragging Committee
- Discipline Committee
- SC/ST Committee
- NSS Committee
- NCC Committee

The Committees convene meetings periodically and discuss about issues related to academic and administrative activities.

Policies for the functional aspects of the Institution:

The Institution has a set of well-defined rules, policies and regulations defined within the framework of UGC, AICTE, State Government and Affiliating University. The Governing Body approves these policies. The service rules are formulated and these rules are periodically reviewed, updated and displayed on the college website.

- Grievance Redressal Policy
- Service Rules
- Code of Conduct
- Student Policy
- Energy Policy
- Environmental Policy
- Examination Policy

- Incubation & Start-up Policy
- Research Promotion Policy
- Industrial Consultancy Policy
- Library Policy
- IT Policy
- Maintenance Policy
- Training and Placement Policy
- Budget Policy
- Disabled-friendly, barrier free environment Policy

The details of one committee and two procedures are given below as examples:

The **Grievance Redressal Committee** is constituted to consider all the individual grievances of students and staff. The students and faculty with a genuine grievance may approach the grievance redressal committee to submit his/her grievance in writing to the **Convener**, Grievance redressal committee of LBRCE. The web-based grievance redressal mechanism is also in place through the college website. The students with a grievance can post the complaint to appropriate authority, namely Class Coordinator, HOD, or Principal. The grievance is placed before the Grievance Redressal Committee for resolving the issue amicably. The grievances are addressed systematically and impartially with the involvement and cooperation of the respective department, maintaining strict confidentiality and in a time-bound manner.

All the **recruitments** are made transparent duly advertising the posts in leading dailies/online and conducting interviews involving external experts from NITs/ IITs/ Universities/Premiere Institutions.

Promotions are accorded as per the norms taking the faculty qualifications and their contributions into consideration. Performance-Based Assessment System is in place, and promotions are offered to the faculty members who fulfil the key performance indicators.

File Description	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](#)
Institutional data in prescribed format	[View Document](#)
ERP (Enterprise Resource Planning) Document	[View Document](#)
Any additional information	[View Document](#)
Link for additional information	[View Document](#)

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression

Response:

The institution has effective welfare measures in place for its teaching and non-teaching staff. The various welfare schemes are as follows:

Welfare measures for teaching staff

- EPF facility
- Group Health Insurance and Accident Policy Coverage.
- Providing Personal loans with corporate guarantee
- Salary advance to the needy staff
- Free/Concessional Transportation
- Medical Leave and Free medical facility for common ailments
- Special Leave and Financial assistance for faculty to attend Conferences/ Workshops/ FDPs/ STTPs/ Certification programs.
- Study Leave for Doctoral Program
- Faculty are provided incentives for publications
- Seed money grant for pursuing minor research activities and supporting for experimental setup to pursue PhD.

Welfare measures for non-teaching staff

- Plots for Construction of Houses
- Gratuity
- 50% Tuition Fee Concession for Supporting Staff Children
- EPF facility
- Group Health Insurance and Accident Policy Coverage
- Special Leave and Financial assistance to attend training programs
- Medical Leave and Free Medical Facility for Common Ailments
- Salary Advance to the Needy Staff
- Providing Personal loans with corporate guarantee

The following career development facilities are made available for teaching and non-teaching staff

Availability & Accessibility of Software

The Faculty members are provided with advanced software at the institute; helps them to enhance skills and knowledge in respective domains. Faculty members are using these software facilities for the purpose of research publications, doctoral work and applying for funding projects.

Laboratory facilities for the Career Development:

Domain specific research laboratories are available for every department and were made accessible to all the faculty members for executing innovative project works, model making and for their research oriented works.

Skill Development Facilities for the faculty:

The institution has MoU with APSSDC and trains the faculty at schedules time and the fields of cutting edge technologies as initiated by APSSDC. The institution financially supports the faculty who are interested to learn advanced courses through NPTEL, Courseera *etc*.

Skill Development Facilities for non teaching staff:

For the purpose the enhancing the software as well as technical skills, institution periodically arrange for the training programs both by internal and external agencies. The non-teaching staff are also recommended to attend technical training programs organized by other technical institutions.

Yoga Classes:

For the effective functioning and emotional balance of our staff Yoga Classes are arranged every evening at the campus.

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: 43.75

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**

2019-20	2018-19	2017-18	2016-17	2015-16
49	110	210	102	87

04-01-2022 04:21:30

File Description	Document
Institutional data in prescribed format	
Link for additional information	

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

Response: 20.2

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**

2019-20	2018-19	2017-18	2016-17	2015-16
30	19	18	19	15

File Description	Document
Reports of Academic Staff College or similar centers	
Institutional data in prescribed format	
Any additional information	

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: 65.8

6.3.4.1 **Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years**

2019-20	2018-19	2017-18	2016-17	2015-16
187	165	165	167	138

04-01-2022 04:21:33

File Description	Document
IQAC report summary	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

In every financial year the college will conduct internal audit through departmental staff as well as external audit by the statutory Auditors. The Finance Manager reviews the monthly transactions. While verifying entries, if any mistakes/ short comings identified/noticed the same could be rectified in the same month by the concerned departments. The internal financial audit is conducted at every quarter. The external statutory auditors shall visit the college office twice in a year for vouching audit and submitting the final audit report.

After completion, the final statutory audit report shall be submitted to the Governing body for approval. After approval, the financial accounts, documents could be used for all statutory purposes.

The mechanism of resolving audit objections are given below:

Internal Audit committee meet separately with an external and Internal auditor to discuss matters that the committee or auditors believe should be discussed privately. The committee reviews proposed audit approaches and handle coordination of the audit effort with internal audit staff. The findings of the Auditors are referred to the Audit Committee of the Institution. The Audit Committee goes through the findings and submits its remarks/responses to chairman of the Finance committee. The audit report along with the response of the Audit Committee is reviewed by the Finance Committee. So far, there have been no major short comings/findings.

File Description	Document
Link for additional information	View Document

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

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)**

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	[View Document](#)

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

Response:

The institution developed a strategy for mobilizing resources and ensures transparency in the financial management of the institution. It primarily depends on the Quality enhancement and the reputation of the Institution. Competent faculty with a higher qualification, State of art laboratories and good placement record enabled fixation of better fee by the Govt. Fee Regulatory Authority. Research funding and Consultancy from Govt. and Non-Govt. organizations and donations from philanthropists depends on the maintenance of quality standards. Thus quality enhancement in the institution is facilitating the generation of funds from different sources.

The following are the different ways of mobilizing the funds in the Institution.

1. Tuition fee

The major source of revenue generation is tuition fees collected from students. The appropriate fee is fixed, as per the norms, by Fee Regulatory Authority of Govt. of Andhra Pradesh depending on the accreditation of programs by NBA and NAAC and also the reputation of Institution and amount spent for the development of Institution.

2. Sponsored research and Consultancy

Funds are also mobilized through sponsored research projects from National funding agencies such as DST, UGC, AICTE, DRDO, ISRO, etc. and Non-Government agencies. Revenue generation through consultancy and material testing from Government and Non-Government sectors is another source of income to the Institution.

Optimal utilisation of resources:

An annual budget is prepared to ensure optimal utilisation of financial resources, based on the estimates received from the departments and functional units of the Institution. The Governing Body approves the Budget of various departments and sections of the institution for the Financial Year. Audit is performed periodically to ensure whether the budget is optimally utilized or not. The resources in the form of facilities and equipment are maintained to ensure optimum performance. Annual maintenance contract is in position for the equipment and software.

04-01-2022 04:21:35

File Description	Document
Link for additional information	<u>View Document</u>

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

Response:

The IQAC initiatives have resulted in the following two institutionalized practices as described below:

I. Academic and Administrative Audit (AAA):

The IQAC initiated Academic and Administrative Audit (AAA) for the purpose of ensuring implementation of Outcome Based Education (OBE) across all the programs of institution as well as to identify the resources required in the effective implementation of OBE. AAA is conducted with the external team members from premier institutions once in an academic year. Before the external audit internal audit team constituted of two senior faculties from the other department, audits each department thrice in a semester. In these audits the quality of the question papers in the light of Bloom's learning levels, course outcomes and the attainment of course and program outcomes and the action taken for the continuous improvement were examined and qualitative report will be submitted IQAC cell which intern provides suggestions to the respective department in consultation with the Dean of Academics.

The external audit team conducts a comprehensive audit covering all the aspects of institution in accordance to the criteria as specified by accreditation and Institute Ranking Framework authorities like NBA, NAAC and NIRF etc. The suggestions given by the external team are discussed with the Principal and action plan is prepared and implemented in the coming academic years. The efforts in this direction helped the institution to raise its bar in terms of accreditation and ranking. Five of our departments are accredited by NBA under Tier-I. Institution was listed in Rank band of 201-250 by NIRF India Rankings 2020.

II. Incremental Initiatives made in the preceding five years to enhance skill set of the students

In addition to the recommendations of NAAC peer team in the last visit the following are some initiatives undertaken towards the skill set enhancement of students.

- Dedicated training programs for improving in terms of Soft Skills, Programming Skills and Technical Skills have been arranged for specific targeted students resulting in better placements. Dedicated centre for Career guidance and Training Team to train on programming and technical skills have been made available.
- Practical exposure through industrial visits, 04 weeks of case studies and 02 weeks of Industrial training is made mandatory in the new regulations to understand the ongoing technologies in the

industry.

- English Communication Skills lab facility as well as addition of SPOORTHY-The Literary Club and Foreign Language certifications (German & Spanish) resulted in improvement of student communication skills.
- One significant improvement based on the comments of peer team is addition of professional societies, Institutional clubs and departmental technical clubs.
- Establishment of Industry Institution Interaction Cell and advanced labs
- Activities of Centre for Innovation, Incubation and Entrepreneurship have been strengthened and resulted in Two Start-Ups.
- Media Centre and 12 Smart Classrooms with interactive panels have been established.
- All classrooms, laboratories and Seminar Hals are ICT enabled.
- Internet bandwidth has been improved from 220Mbps to 1160 Mbps.

File Description	Document
Link for 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:

IQAC deployed standard structure and methodologies for the review of teaching learning process and learning outcomes at periodic intervals. Regarding the review of teaching learning process, the IQAC has setup the following practices at our institution.

(i). Internal Academic Audit:

In a semester, every department is audited thrice in every semester by two auditors from other departments nominated by the Chairperson of IQAC (Principal). The auditors will verify the following parameters and submit the compliance to IQAC / Dean of Academics.

- Course Objectives and Course Outcomes (COs).
- Course articulation matrix (Mapping of COs, POs and PSOs).
- Lesson Plan Schedules.
- Details of learning material as well as e-content developed by the faculty.
- Posting of attendance in attendance registers.
- HODs weekly review in lesson plan and in attendance register.
- Syllabus coverage as per the schedule or not.
- I-Mid, II-Mid and End Semester Question Papers and Scheme of valuation.
- Action Taken Reports (ATRs) on I-Mid and II-Mid marks.
- Posting of Internal Marks in attendance registers.

- Semester End Examination result analysis and ATRs.
- COs attainment computations.
- Gap analysis between COs attainments and Target levels & ATRs.

(ii). Pedagogy Techniques for Effective Teaching Learning:

We have developed a strategy to retain the employees for relatively long period by clearly defining their roles and responsibilities and evaluate their performance by specifying Faculty Performance Index (FPI) on 10-point scale. This FPI is measured after completion of every semester with 60% weightage from student feedback analysis, 25% weightage from pass percentage in the course taught, and 15% weightage for all contributions at departmental, institution level and R&D.

The appraisal policy is as follows:

- FPI>=9 Self Appraisal
- 8<=FPI<9 Appraisal by HOD
- FPI < 8 Counselling by HOD & Principal followed by completing academic assignments to improve the performance, like preparing course material, answers for assignments, notes for important topics in further academic load allocated.
- Based on the FPI, Best Teacher awards are given on the eve of Teachers' Day celebrations
- Online student feedback for faculty is being practiced in all departments. Feedback is collected in middle and the end of semester to assess teaching proficiency of the faculty. Feedback comprises of punctuality, syllabus coverage, clarity of presentation, motivational abilities and maintaining the discipline in the class, etc.

IQAC directs all the HODs to select a set of teachers with FPI below 8 and conducts training programs for improving their teaching learning skills. The set also includes newly recruited less experienced teachers.

A training is given by experienced senior faculty members of the institution. After the training the faculty members are evaluated for teaching learning skills by conducting demo lectures. Some example methodologies and scenarios for model demo lectures are given below.

- Introduction of a course in the first day of your class.
- Introduction of Course Outcomes (COs) in the first week of a semester.
- A regular class before a mid examination as per the time table.
- A class after a mid examination. (After evaluation of answer scripts).
- You are in a class and there is force to continue the next immediate hour.
- While taking attendance, you came to know that more students are absent in your previous topic, now they are present.
- While teaching a class, few students are making noise.
- Some students are irregular to your class, now they present in the class.
- HOD told you to take extra class (Last hour), but students are not interested to listen your subject.
- How to mentor your students in a counselling class.
- After I-Mid examination, you are taking a class by knowing your feedback, which is low.
- Power interruptions while your class presentation (PPT) is going on.
- Semester results are announced, and more students failed in a particular course, which is a prerequisite of your current course
- In your class only 50% students are attended / present.

In addition to the above pedagogy techniques for continuous up gradation and awareness of the latest advancements IQAC recommends all faculty members to register for Online Certification Courses such as SWAYAM, COURSERA and MIT. Faculty are also encouraged to attend Faculty Development Programs/STTPS organized by premier institutions.

File Description	Document
Link for 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)

Response: All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)
Link for 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:

a). Safety and Security:

The safety and security of girl students is a prime concern of our college. The institution aims to groom students to be self-reliant, respectful for cultural diversity, aware of their social and civic responsibilities and gender sensitive. These have the highest regard for women safety, security, and environmental consciousness. Keeping the above in mind the following practices are being implemented.

- A secure parking lot nearer to Academic Blocks is earmarked for girl students.
- Separate Canteen space for girl students.
- Every Department has a girl's waiting room with required amenities.
- Separate and secured hostels are available for girl students within the campus.
- Class room arrangement is made in such a way that girl students are comfortable.
- Wi-Fi enabled reading room is established in the women's hostel and also in the library.
- Women's grievance cell is functioning which takes care of issues of grievances and welfare of the women.
- Internal Complaints Committee (ICC) is also operating in the college to safeguard the girl students.
- Security wing with 23 guards are placed in the campus and hostels.
- Every year there is a celebration of women's day and inspiring women personalities are invited to share their life experiences.
- Timely medical assistance for girl students is available
- The college has installed 150 Closed Circuit (CC) cameras to monitor the security and safety.

b). Counselling:

Both general and individualised counselling has been accorded to the students. Health awareness programs for girl students are arranged in Hostels and during the induction program. Counselling programs are arranged for women safety by Saheli-The Girls Club which is associated with ICC aims to empower women and girl students. It plans for diversified social and economic activities involving women.

Whenever any grievance or complaint arises, the students are directed to approach ICC or specifically designated women faculty case by case. All such matters are kept highly confidential. The college takes utmost care in dealing with the said matters of counselling the girl students. The college endeavours to look after the total personality development of students leading to elevated self-confidence, positive self-image, mutual respect, etc through Co-Curricular and extra -Curricular activities and comprehensive counselling inclusive of girl students.

c). Common Room:

Every Department has an exclusive waiting hall for girls with wash room facilities. There are 14 common

rooms available on the campus. All such waiting halls are well ventilated and adequately furnished such that the students who happen to fall sick or those that require taking a little span of rest for certain specific reasons can do so. In cases of medical requirement, members of faculty in the vicinity attend to the students for arranging medical facilities. The students are provided with basic medicines and first aid facilities. Female attendants are made available in the said waiting halls.

File Description	Document
Annual gender sensitization action plan	View Document
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

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 has Prakruthi-The Environmental Club to promote awareness on environmental issues such as protection, conservation, preservation, restoration. LBRCE signed a Memorandum of Understanding (MoU) with ITC to recycle and reuse the paper and cardboard waste generated in the campus.

Solid waste management:

The main aim of solid waste management is reducing and eliminating adverse impacts of waste materials on human health and environment. Composting provides a means of accomplishing all three R's (Reduce, Reuse, Recycle). In the institution, the greenery is nurtured by the natural manure produced in the institution.

Metal and wooden waste is stored and given to authorized scrap agents for further processing. Sanitary napkins are disposed of using the incineration process. The old records and books left in campus and hostels are collected and sent to ITC-WOW organization for further action.

The biological reusable waste is processed as organic manure for the plants in campus, while other solid waste generated in the campus is dumped in the community bin of Mylavaram municipality.

Liquid Waste Management:

Drinking water facility is arranged in all buildings of the campus. Wastage of drinking water is restricted through proper monitoring. Proper drainage system is found in all buildings of the campus

- Sewage from campus is collected through a proper drainage system and is let out into municipal sewers.
- Sewage from the girl's hostel is treated in septic tanks and the effluent is stored in a storage tank, while the excess is reverted to growing trees in the vicinity.
- Sprinklers are used to develop the lawns/greenery in the campus.
- All the buildings are provided with an open sewer system.

E-Waste Management:

The e-waste generated from hardware which cannot be reused is being disposed to third party recyclers. The low configured computers are donated to nearby schools and institutions.

An effective system of segregation, collection, storage and eco-friendly disposal of waste is put in place. The condemned equipment, damaged computers and waste compact discs are disposed through outside agencies.

Waste Recycling System:

The amount of garbage sent to landfill for composting the organic matter is reused rather than being dumped. Wet waste from the canteen and hostels is collected and converted into compost.

The compost plant for solid waste management was placed in the campus. A Plastic shredder is used to splinter the plastic into tiny pieces that makes waste management smoother. With this process the recycling of the plastic waste in domestic areas, industries get cheaper by Shredding, while processing and transportation.

Hazardous chemicals management:

Keeping in view of student safety as well as environmental protection, the Department of Chemistry fixes

the concentrations of solutions to very low levels. Necessary precautions are taken to store chemicals safely in a separate room.

Stakeholders from Academic Departments and laboratories are made responsible for disseminating information on hazardous materials that are being used.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
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

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: C. 2 of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	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	<u>View Document</u>
Certification by the auditing agency	<u>View Document</u>

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	<u>View Document</u>
Geotagged photographs / videos of the facilities	<u>View Document</u>

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

Response:

The institution has always been in the forefront of sensitising students to the cultural, regional, linguistic, communal and socioeconomic diversities of the state and the nation. In pursuit of achieving this goal, LBRCE is undertaking various initiatives such as conducting the birth anniversary of eminent personalities as well as National Festivals. NSS, NCC and Club activities provide an inclusive environment by bringing students and teachers with diverse backgrounds. These initiatives help in developing tolerance harmony towards cultural, regional, linguistic, communal, and socioeconomic diversities. Making the courses on Constitution of India and professional ethics mandatory to all UG programs is another initiative which contributes to the above goal.

Under PMKVY scheme, LBRCE has conducted 400hrs training programs on domestic data entry operators for rural unemployed lady members. Twenty-five members are trained among whom 23 have become eligible for certification. Among these 23, twenty-one have cleared the program and received certificates from NSDC-AICTE.

Yoga classes are conducted for people in adopted village Ganapavaram to create awareness on health. Masks are distributed to MPUP school children for protection from Covid-19 and clay Ganesh Idols are distributed to improve the eco-friendly environment. Exam Kits are distributed to 10th class students in Girls High School, Mylavaram.

Awareness program is conducted on Single Plastic Usage and Swachh Bharat in Ganapavaram Village. Awareness is created on the use of computers and installation of operating systems to the teachers of MPUP School at Pondugala.

Awareness on DISHA App by S.P, Krishna Dt. is conducted and an awareness program on Helmet Usage and Prevention of Road Accidents is also conducted to the public of Ganapavaram.

Eye camps are regular practice by LBRCT and in the process with collaborations from Rotary Eye Hospital, Vuyyuru extend surgery and distribute glasses, medicines to 40 patients in every eye camp. General medical camps, Orthopaedic camps are arranged at adopted villages and medicines are distributed in association with Primary Health centre, Sowjanya Hospitals, Vijayawada. A protected Water Supply is provided to rural areas of Mylavaram as part of LBRCT activities.

Two important national festivals, Republic Day and Independence Day are celebrated every year. All teaching, non-teaching staff and students participate and pledge for the betterment of the nation.

The institution always encourages the students to organise and participate in different Programs organised by our institution, other institutions at university and other government or nongovernment organization levels. This also sensitizes our students towards cultural, regional, linguistic, communal and socioeconomic diversities.

Kruthi – The Fine Arts and Cultural Club has been established to provide a platform for the students to bring out hidden talents. This club provides facilities and organizes cultural events that provide harmony for our students there by contributing towards the specified goal.

NCC provides various local and national camps for their cadets to explore the diversities. The activities include exploring history and geography, learn about economy and good practices as well as cultural heritage, festivals, customs and traditions of the states.

File Description	Document
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:

Individuals with different backgrounds viz., cultural, social, economic, linguistic, and ethnic diversities comprise our citizens and they are governed and guided by the Constitution irrespective of caste and religion. Accordingly, it becomes necessary to sensitize students and employees about values, rights, duties and responsibilities of citizens. The expected awareness regarding values, rights, duties and responsibilities of citizens is declining among the students day by day. Accordingly, an effort is required by the institutions in this regard. The corresponding implementations by our institution are given below.

The students are inspired by participating in various programs on culture, traditions, values, duties, and responsibilities from prominent invited guest speakers. The institution establishes policies that reflect on core values. Code of conduct is prepared for students and staff which is to be obeyed by everyone. Moreover, institution conducts awareness programs on the ban on plastics, cleanliness, Swachh Bharat, etc. there by promoting value system among students.

The institution designed the curriculum with mandatory courses like "Professional ethics and human values", "Constitution of India" as a small step to inculcate constitutional obligations among the students.

Guest lectures are regularly organized by departments to deliver lectures by prominent people on ethics, values, duties, and responsibilities. Topics on Ethical Values, rights, duties, and responsibilities are included in the Elocution activities and debates as part of department association activities. Induction program for first year students also gives us an opportunity for our principal in inculcating values, rights, duties, and responsibilities.

Every year Republic Day is celebrated by organizing activities highlighting the importance of the Indian Constitution. Similarly, constitution day and Independence Day are also celebrated every year.

Major initiatives taken during the last five years:

Blood Donation

Every year the institution organizes blood donation camps in association with the Indian Redcross Society. The students and employees are sensitized on the importance of the activity and are encouraged to participate in saving the life of citizens of India.

Road Safety Rally

The students and employees are encouraged to participate in the activities of spreading awareness among citizens on social issues like road safety and wearing helmet to avoid accidents.

Cleanliness activities and Plantation drive.

During LAKSHYA- A National Technical and Cultural fest students and employees undertake distribution of 500 plants every year in addition to regular plantation drives initiated by the institution. Students

consistently and regularly participate in the cleaning activities on several occasions.

Flood relief donations:

Generous Management, faculty and students of our LBRCE contributed positively and donated amount towards the victims of Floods.

Fund raising towards to Sainik Welfare

To serve the Nation, LBRCE came forward to collect funds from faculty and staff for the Armed Forces fund. The collected amount was sent to the District Sainik welfare Fund, Vijayawada.

File Description	Document
• 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
Any other relevant information	View Document

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

Response:

The Institution is organizing the following national and international festival days including great Indian leaders' birth anniversaries. India is worldwide known for its cultural diversity and colourful festivals.

Independence Day - 15th August:

Every year, on this day, our college Principal hoists the National flag in the college premises to commemorate Independence Day and addresses the faculty and students. NCC Parade is a major highlight on this day. Patriotic presentations by students add colours to the celebrations.

Teacher day - 5th September:

Teachers' Day is a special day for the appreciation of teachers, and may include celebrations to honour them for their special contributions in their particular field area. We are organising Teachers' Day Celebrations and felicitating teachers who obtain higher qualification and academic achievements for every academic year.

Engineers day - 15th September:

The institution conducts Engineers' day celebrations every year on 15th September i.e., Sir Mokshagundam Visvesvaraya birth anniversary. During these celebrations, the students are encouraged to exhibit their creative technical models and are evaluated by judges from premier organizations. This event increases creative thinking in the young minds of engineering students.

Gandhi Jayanti - 2nd October:

Various competitions are conducted for students in college with ideologies of Gandhi's effort in the Indian independence movement as the theme.

Telugu Bhasha Dinosthavam is celebrated every year on 29th August to admit utmost reverence to Telugu- the mother tongue of the people in Andhra Pradesh, by conducting a host of literary competitions like Essay writing, debates, quiz, etc exclusively in Telugu language.

Dr.K.L.Rao Birthday Celebrations on 15th July : Every year on 15th July Dr.K.L.Rao Birthday celebrations are organized by the department of civil engineering

Republic Day -26th January:

Every year, on this day, our college Principal hoists the National flag in the college premises to commemorate Republic Day. Addressing the faculty and students, NCC Parade is a major highlight on this day.

National Unity Day- 31st October: National Unity Day is celebrated on the Birth Anniversary of Sardar Vallabhbhai Patel, who is popularly known as Iron man of India. He played a leading role in the country's struggle and guided its integration into a united independent nation. As a part of the program a Massive Rally was taken out to spread the message of Unity among the younger generation.

National Education Day 11th November:

National Education Day is celebrated on the birthday Anniversary of Bharathratna Maulana Abul Kalam Azad, First Minister of Education in the Indian government and also contributed for the establishment of educational institutes like IIT Kharagpur.

International Day of Yoga

International Day of Yoga is celebrated on 21st June of every year with major participation from staff and students.

File Description	Document
Geotagged photographs of some of the events	[View Document](#)
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 Practice-I

1. Title of the Practice:

Effective Implementation of Outcome Based Education (OBE) in Teaching-Learning Process

2. Objectives of the Practice:

- To address the learning levels of students and make teaching more student-centric.
- To guide the faculty towards better planning in teaching-learning methodologies.
- To augment effective knowledge transfer through core, elective courses in addition to integrated learning practices.
- To enhance critical thinking, problem solving skills among students.
- To enrich technical skills through modern tools usage.
- To improve self-learning capabilities through MOOCs.
- To enrich the curriculum that suits to current industrial needs.

3. The Context:

Good teaching practice has a key influence on student learning - a desired outcome and primary goal of higher educational institutions. Teachers strive to meet the principles of good practices in an effort to provide the best learning experience for their students. Accordingly, our institution has been implementing OBE in Teaching - Learning.

4.The Practice:

I). The process of teaching-learning for effective content delivery is realized by involving Course

Coordinator Committee (CCC), Module Coordinator Committee (MCC), Program Assessment Committee (PAC) and Department Academic committee (DAC).

- Preparation of course hand-outs and identifying Course Outcome (CO) targets as per the recommendations of Module Coordinator committee are worked out in addition to exploring the attainment gaps.
- Module coordinators play vital role in developing course contents, setting of CO targets, monitoring of attainment gaps, preparation of quality questions and suggesting best delivery methods suitable for specific courses.
- Every year DAC and PAC are reviewing POs and PSOs attainments of graduating batch. After analysis, for effective OBE implementation the following actions are taken to strengthen the teaching-learning process.
- Delivery methods are adjusted according to COs attainment of respective courses.
- Curriculum revisions are done based on POs and PSOs attainments to meet the stakeholder expectations.
- Every department is preparing a calendar of events to strengthen the attributes of students based on learning outcomes.

II). In order to ensure the effective implementation of OBE, IQAC conducts academic audit thrice in every semester. The academic audit team verifies the following parameters and submit the compliance to IQAC Coordinator.

- Course Objectives and Course Outcomes (COs).
- Course articulation matrix (Mapping of COs, POs and PSOs).
- Lesson Plan Schedules.
- Details of learning material as well as e-content developed by the faculty.
- Posting of attendance in attendance registers.
- HODs weekly review in lesson plan and in attendance register.
- Syllabus coverage as per the schedule or not.
- I-Mid, II-Mid and End Semester Question Papers and Scheme of valuation.
- Action Taken Reports (ATRs) on I-Mid and II-Mid marks.
- Posting of Internal Marks in attendance registers.
- Semester End Examination result analysis and ATRs.
- COs attainment computations.
- Gap analysis between COs attainments and Target levels & ATRs.
- Implementation of LMS (lms.lbrce.ac.in)

III). IQAC evaluates Faculty Performance and provides necessary recommendations towards implementation of OBE.

- The effective implementation of teaching-learning process is reviewed by IQAC through a Faculty Performance Index (FPI) for every teacher as per specified procedure of the institute.
- IQAC informs all the HODs to select a set of teachers with FPI below 8 and conducts training programs for improving their teaching learning skills. It also includes newly recruited faculty those are having less than two years of teaching experience. After the training, the faculty members are evaluated for teaching-learning skills by conducting demo lectures including OBE implementation.
- Faculty members are encouraged to register for Online Certification Courses such as SWAYAM, COURSERA and MIT OER and to attend Faculty Development Programs/STTPS organized by

premier institutions for further improving teaching learning skills.

IV). Certification and training programs on emerging technologies and soft skills are arranged for students through the following centres to strengthen the usage of Modern Tools.

- CM's Skill Excellence Centre-APSSDC
- DASSAULT SYSTEMS-3D Experience Centre (CATIA Software)
- ANSYS Skill development center
- Applied Robot Control (ARC) Lab.
- National MEMS Design Centre (NMDC).
- CISCO Network Academy.
- NI LABVIEW Centre of Excellence.
- Centre for Career Guidance and Training (CCGT).
- Training & Placement Cell conducts hands-on sessions for programming ability improvement by the internal faculty who got trained by E-BOX, WIPRO, CISCO, AWS and Blueprism.

5. Evidence of Success:

- Five departments have been accredited by NBA under Tier-I.
- The Institution is listed in the rank band of 201-250 in NIRF-India Rankings 2020.
- 30 Students received Prathibha Awards from Govt. of A.P.
- Improved placement offers through skill centres (A.Y.2015-16: 515 to A.Y.2018-19: 622) and improvement in annual CTC (3.6LPA to 10LPA).
- 9 students are placed through Applied Robotic Control Lab activities
- 8 students are placed through Dassault systems lab (APSSDC- CATIA)
- 12 students are placed through ANSYS Skill Development Centre
- An average of 85% students are Successfully graduated for last five years out of them 53% students are Successfully graduated without backlogs.
- NPTEL Local Chapter Graded as 'A', 'AA' and 'AAA' and 60 faculty and 20 students are stood as Toppers in NPTEL certifications
- Publications have been improved from 43(A.Y:2015-16) to 465 (A.Y:2019-20) in quality journals

6. Problems Encountered and Resources Required

Acceptance for OBE procedural changes is more than 95% by the faculty. However, adapting to the changes is observed to be slow.

Best Practice-II

1. Title of the Practice:

Ensuring holistic development of students through Co-Curricular, Extracurricular and Extension Activities

2. Objectives of the Practice:

- To nurture the technical skills through department specific professional bodies and technical clubs.
- To explore inherent skills of students through National Level Technical and Cultural Symposia

- To enhance student's physical and psychological competence by games, sports and yoga.
- To understand the importance community services and enhance social empathy by NSS activities.
- To make student a responsible citizen with ideal qualities like character, courage, comradeship, discipline, leadership, secular outlook, spirit of adventure.

3. The Context:

It is necessary that the student attains requisite knowledge in his/her branch of engineering as well as possess adequate soft skills and programming ability to become employable or an entrepreneur. Attending all the schedules of co-curricular, extracurricular and extension activities would undoubtedly make students well fit for any kind of responsibility.

4. The Practice:

I).Empowering of students to acquire technical and life skills through following student-centric platforms as part of Co-curricular activities.

- **IEEE Student Chapter**: The chapter has been very functional in exploring the knowledge levels of students by means of several technical competitions like quizzes, project expo, fast circuit, waste to health etc. In addition to these, guest lectures, workshops and training programs are conducted.
- **ISHRAE Student Chapter**: It facilitates conduction of numerous technological training programs offered to Mechanical engineering students.
- **CSI Student Chapter:** It focuses on enriching the technical knowledge of students in the latest programming languages including leadership qualities through different activities continuously.
- **ISTE Chapter:** It enables students to undergo training that suits to industrial emerging needs through specific skilled development programs. Identifying thrust areas and accordingly workshops / hands-on sessions are conducted that helps the students to get acquainting with latest technological developments.
- **IETE Student Chapter:** It facilitates in providing guidance and training to students to develop better learning skills and personality.
- **IE (I):** The objective to promote the pursuit of excellence in the field of engineering.
- **Department Technical Clubs:** The main aim of these clubs is to share the latest technological developments pertaining to their core subjects, performing competitions, and producing department technical magazines covering technical and non-technical aspects helps in getting contemporary issues. These clubs are found to be so crucial, and students have been involving actively in all activities. Each and every department has its own technical club.
- **Centre for Innovation, Incubation and Entrepreneurship (CIIE)** facilitates incubation of innovative ideas pertaining to socio-economic issues.
- **Institutional Student Clubs:** In order to improve the personality of students, different clubs are functioning in the institution:
    - **Saheli-The Girls Club** is a student club dedicated to the cause of bettering the lives of women and girl students. It organizes a variety of social and economic activities involving women.
    - **Prakruthi - The Environmental Club** aims to increase and promote awareness of environmental issues such as protection, conservation, preservation, restoration and help students and staff to adopt and adapt the idea and philosophy of sustainable development into their daily lives at college and out of it with an emphasis on educating and empowering them.

- **Spoorthi - The Literary Club** to organize plethora of literary & co-curricular activities to improve competencies among students and to get 'SPANDANA- the heart's beat' - the students' Magazine published every quarterly.
- **Kruthi – The Fine Arts club** provides a great platform to the students, to bring out their hidden talents by establishing fine arts club.

II). Enrichment of student's physical and mental competencies through extra-curricular activities.

- **Sports and Games:** It aims to develop students' physical competence and knowledge of movement and safety, and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle. The necessary sports facilities suitable for providing training are made available.
- **Gymnasium:** The objective is to get healthy in body and mind to live a longer and more fulfilled life.
- **Yoga:** It aims at developing concentration, memory power, will power and self- confidence. Good Health can be achieved by the regular practice of Yoga & Meditation.

III).Development of student's attitude towards social service by Extension Activities.

- **NSS Unit:** The institute promotes regular engagement of students, faculty and supporting staff with the neighbourhood community for holistic and sustained community development through NSS Unit. It enables students to understand practical problems of the common people in society and enhance social empathy. Further, it helps to realize the value of civic sense, public morality, efficient utilization of resources, good traffic sense, public safety and ethical living.
- **NCC Girls Wing:** It aims developing qualities of character, courage, comradeship, discipline, leadership, secular outlook, spirit of adventure and sportsmanship and the ideals of selfless service among the youth to make them useful citizen.

5. Evidence of Success:

Co-Curricular activities.

- ISHRAE Student Chapter and IEEE Student Chapter have been adjudged as Best Student Chapters
- Students got placement offers by ISHRAE Student Chapter.
- Best Computer Science and Engineering student award - 2019 by ISTE.
- Best Innovation Award for student by JNTUK Kakinada
- Best Researcher Award for faculty by JNTUK Kakinada.
- 3 star rating to CIIE by Institutions Innovation Council (IIC), MHRD.
- 21 students are certified in German and Spanish languages

Extra-Curricular activities.

- FIRST place in Kabbadi, Student Olympic Games 2018, MALAYSIA
- Bronze & Silver Medals in Wako India Kick Boxing Federation-2018.
- 2nd place in National Level Yoga Championship-2016.
- 2nd Place in State Level Yoga Competitions-2019
- Runners in Football and Basketball, JNTUK Inter Collegiate Tournament-2019.
- 2nd Place in Andhra Pradesh CM's Cup - Inter University Yoga Competitions-2017.

- 3rd Place in Andhra Pradesh Power Lifting Championship-2017.

Extension activities.

- One Student secured FIRST place in State Level NSS Youth Festival-2019
- NSS Program Officer got State Level Best NSS Program Officer-2019, Best Service Award – 2017 and University Level Best NSS Program Officer -2018.
- Student Participation in Republic Day Parade-2019 at Rajpath, New Delhi.
- Student Participation in Republic Day Parade-2019, State Govt. of AP.
- NCC B&C certifications are increased.

6. Problems Encountered and Resources Required

Strict adherence to the regular academic schedule of teaching-learning, time constraints have affected the participation of students in Co-Curricular, Extra-Curricular and Extension activities.

File Description	Document
Best practices in the Institutional web site	[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:

"Giving Back to the Society"

The LBRCE is run by LBRCT which is well known for its philanthropic attitude in all its activities. The major thrust in all these activities is to improve the rural society in and around Mylavaram. Any such social upliftment requires a focus on different dimensions. Providing good quality technical education to young students at affordable fees is one such important dimension. With this view, LBRCE was established in the year 1998. It not only provides technical education but also many other dimensions are taken into consideration during the progress of LBRCE. Some dimensions are taken care of through the following activities:

- Employability enhancement programs
- Fee concession to economically weaker students
- Financial support to incubate innovative ideas
- Generous Welfare measures for supporting staff
- Generous rural development activities
- Adoption of nearby village

In accordance with Vision and Mission of the institution, spreading education to rural areas is given a high priority by LBRCT. We are very happy that every year more than **30%** of students admitted belong to

Mylavaram and Rural surroundings. Many students are supported by LBRCE at the time of admission through fee concession in case a student is financially weak. The quality of technical education offered at LBRCE is enriched through Employability enhancement programs. This leads to better placement and higher studies for these rural students. This, in turn, contributes towards rural development.

We believe that a students' life is not all about academics, games, friends, and fun. It is also about learning to interact with other people, being aware of social, environmental and gender issues, and inequities in the society. We provide an opportunity to every student to make the society in which he/she lives a better place so that he/she grows as a better individual. The LBRCE has committed itself to the task of inculcating social values and responsibilities in its students.

In line with its vision of working towards the socio-economic development of the country, LBRCE has taken utmost care to give back to the society. Several student committees are formed to carry out duties towards society. The Two-week and one-week long and intense induction programs give the freshmen an insight into the institution's values and vision. Ensuring participation in all these programs gives ample opportunity for LBRCE students to contribute to the cause of "Giving back to the Society".

Along with other sports, cultural and technical activities, the NSS unit plans activities like tree plantation and field visits to expose the students to the pressing issues in our nearby society.

As a special thrust, societal development is also instilled on a large scale into the students through our active NSS unit that undertakes various services to inculcate social values. Throughout the year, the NSS unit undertakes a plethora of events ranging from street plays, cleanliness drives, tree plantation drives, donation drives, waste management drives, Science fair, gender equity activities, field visits and many more. Inspirational programs for school children are conducted regularly by NSS unit to create awareness on technological advancements and impact of science and technology on society.

LBRCE is having a policy of adopting one nearby village every year to extend support to nearby villages regularly to make them aware of certain basic skills and amenities. Further, we consider health care as a top priority in our society. Hence, we frequently conduct medical checkups, drainage cleaning, exploring issues with open defecation, smoking, consumption of alcohol etc. In addition, utmost focus is given to 10th class students along with school dropouts by means of exploring the importance of education in the present context.

The institution ensures that the social values and feeling of giving back to the society is not limited to the NSS unit only. In addition to the activities by NSS, many students do come up with ideas to contribute to society too. We encourage them to go forward by supporting them in executing their ideas. The students have conducted donation drives for flood affected people recently.

The institution has established PRAKRUTHI-The Environmental club through which various environmental protection activities have been initiated such as, Plantation Drives, Distribution of saplings, Awareness programs on environmental issues. Paper usage for official communications in the campus is very much reduced and all such communications at present are through SMS, mails and digital displays.

Many students are encouraged by all departments to take up useful student projects that can contribute towards rural development. Many such projects are implemented during the last five academic years with financial support. The institution CIIE has arranged for training on "Azolla Grass & Mushroom Cultivation and Sugarcane Peeler Machine" for rural youth.

Support in terms of furniture, computing systems, equipment and technical support is extended by LBRCE to schools and institutions around Mylavaram.

"Those who have the ability to act, have the responsibility to act." Abiding by this principle, LBRCE has committed itself and taken on priority the task of social upliftment. To begin with, several vocational training programs have been taken up regularly. Data Entry Operator training program through PMKVY to the rural woman is a prominent one. LBRCE is playing an inspirational role in social upliftment in this way and many faculty members are also encouraged to contribute to this cause extensively.

LBRCT has undertaken many other activities as listed below, having spent several crores of rupees on those charitable activities, thereby contributing towards rural development in a major way.

- Old Age Pensions disbursed monthly for rural old folk
- Eye Camp conducted every week, meeting the expenses of surgery, Medicines and glasses.
- Health Camps are arranged in adopted villages
- Safe drinking water supply to nearby villages
- Construction of School Buildings, Public Utility Structures and Temples

5. CONCLUSION

Additional Information :

The institution has following accolades:

- The college is listed in the rank band of 201-250 under Engineering by NIRF India Rankings-2020
- Ranked in the range of 101-125 by Outlook i-Care Rankings 2021
- Got AAA+ Rating in India's Best Engineering Colleges by Careers 360 in the year 2017,2018,2019,2020 and 2021
- Listed in India's top 100 Engineering colleges by Dataquest-CMR survey in 2020 and 2021
- Secured 35th Rank among India's Best 100 Tech Enabled Engineering Colleges by Dataquest Digital Index 2020
- Our institution got All India Ranking of 369 and Zonal rank of 133 in the year 2019 by Internshala.
- Our Incubation centre got 3 star rating by Institution Innovation Council, MoE, Govt.of India for the A.Y. 2018-19
- Our NPTEL Local chapter listed in top 10 with 'AAA' grade during Jan-April 2018
- Recognized as "Beat Covid Campaign College" by Mahatma Gandhi National Council of Rural Education (MGNCRE)

Concluding Remarks :

At LBRCE, we have prioritized the following for your kind consideration.

Providing a vibrant academic ambience is our priority and this is fulfilled through the implementation of industry suitable curriculum with timely changes. The institution practices Outcome Based Education (OBE) with well-designed industry relevant flexible curriculum with defined COs, POs and PSOs as per the guidelines of UGC and AICTE. ICT tools have been used in the delivery of the courses and hands-on training has been offered in advanced courses in addition to the regular laboratory experiments. Appropriate content delivery methods are in practice to strengthen Teaching-Learning process. The faculty members are deputed to continuing education programmes with financial support. Performance Appraisal System is in place to assess the performance of faculty and guide them for further improvement.

The R&D cell encourages faculty for improving quality of research publications, submission of project proposals and patent filing. The college organises Ideation Fest to invite the innovative ideas of the students and encourages them to participate in national and international student competitions.

The institution is continuously upgrading the physical and academic infrastructure including ICT tools to enhance the student skills.

The mentoring system takes care of the academic and personal issues of the students. The T&P cell imparts necessary training for the students and assists them in securing placements. The institution has an effective governance mechanism in line with the vision and mission by practicing decentralization and participative management through e-Governance. The institution has a strategic plan implemented with the help of certain key performance indicators. IQAC continuously monitors the implementation of OBE in teaching-learning process through regular academic audits.

The Institution has a distinct objective of "Giving Back to the Society" in the form of spreading technical education in rural areas. In line with its vision of working towards the socio-economic development of the country. Since its inception, the college has been conscious about environmental and green initiatives.

The institution always strives to progress continuously by proper planning and execution of all activities for overall development of students and making them employable.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification
1.1.2	**Percentage of Programmes where syllabus revision was carried out during the last five years.** 1.1.2.1. **Number of all Programmes offered by the institution during the last five years.** Answer before DVV Verification : 16 Answer after DVV Verification: 14 1.1.2.2. **How many Programmes were revised out of total number of Programmes offered during the last five years** Answer before DVV Verification : 16 Answer after DVV Verification: 14 Remark : DVV has made the changes as per E.P. 1.1.
1.2.1	**Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.** 1.2.1.1. How many new courses are introduced within the last five years Answer before DVV Verification : 309 Answer after DVV Verification: 289 1.2.1.2. **Number of courses offered by the institution across all programmes during the last five years.** Answer before DVV Verification : 1026 Answer after DVV Verification: 998 Remark : DVV has made the changes as per shared syllabus copy of courses by HEI. DVV has given the input in 1.2.1.2 as per E.P. 3.1 by HEI.
1.3.2	**Number of value-added courses for imparting transferable and life skills offered during last five years.** 1.3.2.1. **How many new value-added courses are added within the last five years** Answer before DVV Verification: <table><tr><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td></tr><tr><td>15</td><td>20</td><td>18</td><td>9</td><td>7</td></tr></table> Answer After DVV Verification : <table><tr><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td></tr><tr><td>10</td><td>12</td><td>12</td><td>6</td><td>4</td></tr></table> Remark : DVV has made the changes as per shared brochures of value-added courses by HEI. DVV has not considered Augmented Reality & Virtual Reality Augmented Reality & Virtual Reality Workshop , Dassault Sytems Global Certification Exam , Workshop on MATLAB Programming

Advanced training on Automotive , "A one week certification program on, IoT Fundamentals 2018-2019" , SCI Lab , NI LabVIEW Module - III (Hands on Training on myRIO) , Cisco Cybersecurity Learn-A-Thon (CISCO CERTIFICATION) , First Phase of training program on Aptitude, Softskills and Technical by Talento , LABVIEW Training : Module - I , Five day training program on ANSYS software and its application to Electrical Engineering, Second Phase of Campus Placement Training Program by FACE, MTA Training and certification program.

1.3.3	**Average Percentage of students enrolled in the courses under 1.3.2 above.** 1.3.3.1. **Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years** Answer before DVV Verification: <table><tr><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td></tr><tr><td>1524</td><td>2647</td><td>1775</td><td>1664</td><td>1274</td></tr></table> Answer After DVV Verification : <table><tr><td>2019-20</td><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td></tr><tr><td>886</td><td>1123</td><td>1143</td><td>987</td><td>976</td></tr></table> Remark : DVV has made the changes as per shared brochures of value-added courses by HEI. DVV has not considered Augmented Reality & Virtual Reality Augmented Reality & Virtual Reality Workshop , Dassault Sytems Global Certification Exam , Workshop on MATLAB Programming Advanced training on Automotive , "A one week certification program on, IoT Fundamentals 2018-2019" , SCI Lab , NI LabVIEW Module - III (Hands on Training on myRIO) , Cisco Cybersecurity Learn-A-Thon (CISCO CERTIFICATION) , First Phase of training program on Aptitude, Softskills and Technical by Talento , LABVIEW Training : Module - I , Five day training program on ANSYS software and its application to Electrical Engineering, Second Phase of Campus Placement Training Program by FACE, MTA Training and certification program.
1.3.4	**Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)** 1.3.4.1. **Number of students undertaking field projects / internships / student projects** Answer before DVV Verification : 1017 Answer after DVV Verification: 989 Remark : DVV has made the changes as per pro-rata basis of shared certificate by HEI.
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)** 2.1.2.1. **Number of actual students admitted from the reserved categories year wise during last five years** Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
762	645	704	712	683

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
382	371	355	380	354

Remark : DVV has made the changes by looking at seats earmarked against reserved admitted students.

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)**

2.4.3.1. **Total experience of full-time teachers**
Answer before DVV Verification : 1740
Answer after DVV Verification: 1652

Remark : DVV has made the changes by excluding those teachers whom leave the college and not considered experience less than 1 year .

3.1.2	**The institution provides seed money to its teachers for research (average per year, INR in Lakhs)**

3.1.2.1. **The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).**
Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
3.7	11.6	1.6	0	0

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

Remark : Seed money not reflected in shared audited statement.

3.2.4	**Average percentage of departments having Research projects funded by government and non-government agencies during the last five years**

3.2.4.1. **Number of departments having Research projects funded by government and non-government agencies during the last five years**
Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16

| 9 | 6 | 5 | 3 | 3 |

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
7	5	5	3	3

3.2.4.2. **Number of departments offering academic programes**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
10	10	10	10	10

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
10	10	10	10	10

Remark : DVV has made the changes as per shared report by HEI.

3.3.2	**Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development during the last five years.**

  3.3.2.1. **Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
58	50	41	35	22

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
34	25	23	18	11

Remark : DVV has not considered those workshops/seminars whom not focus on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development .

3.4.2	**Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/ supervisors provided at 3.2.3 metric) during the last five years**

  3.4.2.1. How many Ph.Ds are registered within last 5 years
    Answer before DVV Verification : 68
    Answer after DVV Verification: 68
  3.4.2.2. Number of teachers recognized as guides during the last five years
    Answer before DVV Verification : 47

	Answer after DVV Verification: 34
	Remark : DVV has made the changes as per metric profile 3.2.3
3.4.3	**Number of research papers per teachers in the Journals notified on UGC website during the last five years**
	3.4.3.1. Number of research papers in the Journals notified on UGC website during the last five years
	Answer before DVV Verification:

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
465	163	90	54	43

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
345	98	47	37	29

Remark : DVV has verified the ISSN number from UGC Care list /SCOPUS Website/Web Sciences.

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
25	23	25	5	4

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
13	15	19	3	2

Remark : DVV has not considered ISSN number. DVV has made the changes as per pro-rata basis of first page with ISBN number.

3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

3.5.2.1. **Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
12.162	10.009	23.827	34.171	4.726

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
315.07	331.76	311.83	327.14	331.91

Remark : DVV has made the changes as per lab equipment's in audited statement duly signed by CA.

3.6.2

Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
347	372	130	36	4

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
98	67	90	16	1

Remark : DVV has only considered awards received for extension activities .

3.6.3

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

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
69	48	50	38	36

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
48	37	40	25	22

3.6.4

Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

3.6.4.1. Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
1706	1551	1141	889	663

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
987	950	879	564	456

Remark : DVV has not consider those students participated in such as activities - Dr.K.L.Rao Birthday Celebrations Competitions on the eve of Gandhiji Birthday Day Celebrations Independence day Celebrations Pada Yatra on Gandhi Preachings Engineers Day Celebrations Police Commemoration Day , Diwas.

3.7.1	**Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work**

3.7.1.1. Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
892	984	971	976	927

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
0	0	0	0	0

Remark : Shared Intern-ship certificates letters, in plant training certificates, on job training certificates, visits, permission letters correspondence, MODROB letter, placement letters etc., cannot be considered as collaboration documents.

3.7.2	**Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)**

3.7.2.1. Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
6	2	10	3	8

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
4	2	7	2	3

Remark : DVV has considered only active MoUs.

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)*

4.1.3.1. **Number of classrooms and seminar halls with ICT facilities**
Answer before DVV Verification : 73
Answer after DVV Verification: 56

Remark : DVV has made the changes as per shared Geo tagged photos of classrooms and seminar halls with ICT facilities .

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

4.1.4.1. **Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)**
Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
347.19	646.8	698.75	775.52	601.77

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
321.57	616.9	669.69	740.2	577.01

Remark : DVV has excluded library books from shared audited statement of Expenditure for infrastructure augmentation, excluding salary by HEI.

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)**

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)**
Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
33.44	39.08	32.74	29.47	22.28

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
27.59	31.08	30.34	27.55	12.81

Remark : DVV has made the changes as per shared report of Annual expenditure of purchase of books/e-books by HEI.

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**

4.2.4.1. **Number of teachers and students using library per day over last one year**
Answer before DVV Verification : 911
Answer after DVV Verification: 756

Remark : DVV has made the changes as per logbook entries of teachers and students using library
.

4.4.1	**Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years**

4.4.1.1. **Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs)**
Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
1007.41	964.74	835.31	779.65	756.76

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
987.10	856.14	765.18	657.19	643.19

Remark : DVV has made the changes as per expense on maintenance of physical facilities and academic support facilities duly signed by CA.

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

5.2.1.1. **Number of outgoing students placed year - wise during the last five years.**
Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
352	275	360	305	343

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
198	176	210	176	190

	Remark : DVV has made the changes as per pro-rata basis of shared placement/appointment letter by HEI. DVV has not considered admission letters and training letter.
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.)** 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** Answer before DVV Verification: 	2019-20	2018-19	2017-18	2016-17	2015-16	 |---|---|---|---|---|
74	82	68	88	92 | Answer After DVV Verification : | 2019-20	2018-19	2017-18	2016-17	2015-16 | |---|---|---|---|---|
70	79	64	84	88 | 5.2.3.2. **Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years** Answer before DVV Verification: | 2019-20	2018-19	2017-18	2016-17	2015-16 | |---|---|---|---|---|
156	112	78	97	153 | Answer After DVV Verification : | 2019-20	2018-19	2017-18	2016-17	2015-16 | |---|---|---|---|---|
156	112	78	97	153	 Remark : DVV has counted one student once for a year.
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.** 5.3.1.1. **Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.** Answer before DVV Verification: 	2019-20	2018-19	2017-18	2016-17	2015-16	 |---|---|---|---|---|
41	17	21	19	13	

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
28	4	15	5	8

Remark : DVV has not considered runner's up and fourth position . DVV has not considered award received in inter college tournament and zonal tournament.

5.3.3	**Average number of sports and cultural events / competitions organised by the institution per year**
	5.3.3.1. **Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
69	69	63	64	100

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
4	6	2	4	5

Remark : Activities conducted on same day considered as one event.

5.4.2	**Alumni financial contribution during the last five years (in INR).**
	Answer before DVV Verification : B. 10 Lakhs - 15 Lakhs
	Answer After DVV Verification: E. <2 Lakhs
	Remark : Amount has not reflected in shared audited statement by HEI.

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.**
	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**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
53	110	216	102	102

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
49	110	210	102	87

Remark : DVV has counted one teacher once for a year.

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).**
	6.3.4.1. **Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
205	197	189	198	151

Answer After DVV Verification :

2019-20	2018-19	2017-18	2016-17	2015-16
187	165	165	167	138

Remark : DVV has not considered duration of program of less than 5 days . DVV has counted one teacher once for a year.

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**

Answer before DVV Verification : A. Any 4 or All of the above
Answer After DVV Verification: C. 2 of the above
Remark : DVV has select C. 2 of the above as per shared circulars of Restricted entry of automobiles and Geotagged photos of landscaping with trees and plants by HEI.

2.Extended Profile Deviations

ID	Extended Questions
1.2	**Number of outgoing / final year students year-wise during last five years**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
1048	1044	1026	1024	1020

Answer After DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
1030	1058	1024	1024	1020

2.1	**Number of courses in all programs year-wise during last five years**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
610	600	568	559	527

Answer After DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
610	586	563	554	525

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
233	261	264	254	245

Answer After DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
231	260	264	254	245

2.3	**Number of sanctioned posts year-wise during last five years**

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
233	261	264	254	245

Answer After DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
231	260	264	254	245

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

Answer before DVV Verification:

2019-20	2018-19	2017-18	2016-17	2015-16
804	771	762	800	737

2019-20	2018-19	2017-18	2016-17	2015-16
426	409	404	424	390

3.4	**Total number of computers in the campus for academic purpose** Answer before DVV Verification : 1342 Answer after DVV Verification : 750

3.5	**Total Expenditure excluding salary year-wise during last five years (INR in Lakhs)** Answer before DVV Verification: 	2019-20	2018-19	2017-18	2016-17	2015-16
1354.6	1611.4	1534.06	1555.17	1358.73 | Answer After DVV Verification: | 2019-20	2018-19	2017-18	2016-17	2015-16
661	964.76	835.33	779.05	756.96	
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