

# **SELF STUDY REPORT**

**FOR**

**2<sup>nd</sup> CYCLE OF ACCREDITATION**

**KONERU LAKSHMAIAH EDUCATION FOUNDATION**

**GREEN FIELDS, VADDESARAM, GUNTUR**

**522502**

**[www.klef.edu.in](http://www.klef.edu.in)**

**SSR SUBMITTED DATE: 28-02-2018**

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**February 2018**

# **1. EXECUTIVE SUMMARY**

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## **1.1 INTRODUCTION**

The KL College of Engineering was started in the Academic year 1980-81 and attained autonomous status in the year 2006. All the six eligible programme of the College were accredited by NBA for the first time in the year 2004 and all the nine eligible programme were accredited in the year 2007, six of them for five years. The College got National Assessment and Accreditation Council (NAAC) accreditation in year 2008 with 3.76 CGPA on 4 point scale. In February 2009, Koneru Lakshmaiah Education Foundation (KLEF) was recognized as Deemed to be University. KLEF is situated in a spacious campus on the banks of Buckingham Canal of River Krishna.

According to "NIRF-India Rankings" released by MHRD, KLEF got, 59th Rank in 2016 and 68th Rank in 2017. The KLEF is also accredited by NAAC in the year 2013 as 'A' Grade with 3.16 CGPA. Recently AICTE recognized KLEF as the "Most Clean Campus in South Central Region". The KLEF has also achieved All India 2nd Rank under Swacchta Institute Rankings-2017 for Technical Institutions/Universities. The institute is also having ISO 9001-2015 Certification.

The KLEF is also recognized as a Public Funded Research Institute by DSIR of Government of India. It has bagged 16 Educational Excellence Awards at Indo-Global Education Summit held in 2015. One of the KLEF girl student "V.JyothiSurekha" has received the "Arjuna Award" from Hon`ble President of India in the year 2017.

### **Vision**

The Vision of the University is to be globally renowned University.

### **Mission**

The mission is to impart higher education and to undertake research and extension with emphasis on application and innovation that cater to the emerging societal needs through all-round development of students of all sections enabling them to be globally competitive and socially responsible citizens.

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

## **Institutional Strength**

1. Review, revise and restructure the curricula through continuous up-gradation of all University programs including research programs.
2. Choice Based Credit System in all programs including Pre-Ph.D programs.
3. Good no. of courses having focus on employability entrepreneurship/skill development.
4. ICT for effective teaching with LMS and e-resources.
5. Academic Staff College programs leading to professional development of the quality faculty.
6. Declaration of Results in about 10 days from the last date of examination.
7. Well defined Policy for Research Promotion.
8. Computational and connectivity facilities.
9. Excellent Infrastructure.
10. Presence of active Student Council and representation of students on academic and administrative bodies/committees.
11. Excellent green environment.
12. Excellent indoor and outdoor sports facilities.
13. Gender equity and sensitivity are created through its 139 programs during the assessment period.
14. More than 20 quality initiatives were converted into best practices which are institutionalized

## **UTILIZING STRENGTHS**

- Qualified and experienced faculty coupled with excellent infrastructure facilities has enabled the university to offer PG programs in diversified areas of specialization in interdisciplinary areas. It proposes to set up more number of centres of excellence in relevant areas and enhance R&D activities.
- The Consultancy policy of the University encouraging the identifications the thrust areas for consultancy and taking the opportunity of providing consultancy services to the newly formed Andhra Pradesh State and the upcoming industries and business units coming in to the State.
- Alumni services have been utilizing for delivering expert lectures on state-of-the-art infrastructural facilities and for improving placements.

## **Institutional Weakness**

1. Strengthening Research programs / activities.
2. Student diversity and Faculty diversity.
3. Government and Non-Government research funding.
4. Corporate Training and Consultancy.
5. International Students.
6. Centers of Excellence.
7. Absence of adequate collaborative approach within and outside the University.
8. Entrepreneurship activities are in the initial stage.

## **OVERCOMING WEAKNESSES**

KLEF has taken the following measures to overcome the weaknesses:

9. Through research promotion and Research Collaborations with National and International Universities.
10. Designing and implementing transparent Admission Policy with a clear provision for promoting student diversity.
11. Promoting Faculty Diversity through necessary amendments to the HR Policy and by taking necessary steps for promotion of faculty diversity and their retention.
12. Preparing the university for grabbing Funds from Government Agencies like UGC, AICTE, DST etc.
13. Exploiting the growth of Capital City, Amaravathi and the establishment of Government and other corporate offices would enhance the Corporate Training and Consultancy opportunities of KLEF.
14. Establishment of Foreign Students Cell and Admission Promotion measures result in increased Foreign Student Enrollment.

### **Institutional Opportunity**

1. In expanding its research base through various UGC programs / schemes.
2. Emergence of Amaravathi on the national and international scenario.
3. Developing leadership qualities in the students.
4. Global collaborations for research and education projects.
5. Expanding the resource base through exploitation of the schemes / projects of Government and Non-Government funding agencies.

### **UTILIZING THE OPPORTUNITIES**

1. Continuous review/revision and restructuring the programs grab the opportunity of developing the most advanced programs in collaboration with global universities.
2. The latest technology leading to efficient and effective teaching learning process results in quality education.
3. Well defined research policy helps in promoting the effective research environment in the University.
4. Academic Staff College helps the University faculty to update themselves in all respects meeting the emerging knowledge trends.
5. Representation of students on academic and administrative committees and the presence of value system helps in producing good leaders / citizens.
6. Excellent facilities and quality faculty result in both horizontal and vertical expansion of the University.
7. The growth of capital city Amaravathi would help the university in growing both vertically and horizontally.
8. Initiated quality measures lead to quality enhancement and quality development leading to Quality Education.

### **Institutional Challenge**

1. Global competition.
2. Hiring manpower for academic, administrative and technical work.
3. Patent earning level of research.
4. Motivating students towards research.
5. Attracting quality students for full-time Ph.D.

6. Motivation of students towards core branch employment.
7. Developing the good leaders and citizens.

### **FACING THE CHALLENGES**

8. In the Era of Globalization, there's a possibility of entry of foreign Universities / Higher Education Institutions as potential competitors. To overcome, KLEF has proposed to enter into MOUs with National and International Organizations.
9. The University has taken all necessary steps to identify and recruit efficient and effective manpower for all purposes through global search.
10. The existing research promotion policy and research environment would also help in taking the present level of 'patent publications' to the level of 'commercialization of patents'.
11. The students have been motivating towards research through students projects which is the part of the curriculum both at UG & PG level. Further, they are motivated through incentives for doing research and its related activities.
12. KLEF has been following the well defined research policy with inbuilt norms of statutory regulatory authorities leading to admitting the quality Ph.D students.
13. The latest trends are restricting the software employment opportunities; the university has been promoting students towards core branch employment.
14. KLEF has developed a strategic plan to utilize the existing strengths, overcoming the weaknesses, exploiting the opportunities and facing the challenges

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

KLEF offers fifty one programs providing a number of program options leading to different degrees in UG, PG, and Ph.D programs in the disciplines of Engineering, Science, Management, Pharmacy, Arts, Law and Commerce. The curriculum design and development takes care of the local needs collected from a study of the ten thrust areas identified by the APIIC, Govt of Andhra Pradesh. The main focus is on the priority areas specified by CII, Planning Commission, and Department of Higher Education which are incorporated in various programs covering the prime needs such as Employability, Human Resource Development and contributions to social Development and National Economy.

Another major area of focus is development of high-skilled human resources to meet future global challenges successfully. These objectives are built into the curriculum at the micro level where the students are to satisfy the POs, PSOs and COs. About 83% of the designed programs are in sync with the Global, National and local needs of employability and entrepreneurship.

The curriculum principally aims at the holistic development of students. In order to achieve this a provision is made for additional courses and activities not directly linked to one's discipline of study. These courses sensitize students to cross-cutting issues like Environment and sustainability, Human values, Gender issues etc. The syllabi are revised from time to time based on current global trends and also stake-holders feed-back. A wide range of value-added courses are offered across all disciplines catering to the Economic, Societal and Environmental needs of the nation.

## Teaching-learning and Evaluation

KLEF organizes orientation programs for Fresher's to acclimatize them to the Engineering environment. While Fresher's day is conducted to make a general introduction to the students and the faculty, a few specific tests are conducted to assess academic and general aptitude levels. After a few weeks of the B.Tech semester, program a Diagnostic test is held and students are classified into Advanced and slow learners. The advanced learners are provided Training that incorporates self-training/learning methods like Technical debates, Video Synthesis, brainstorming, Peer reviews, etc. The slow learners are brought to desirable levels by conducting One minute paper, Think/plan/share, Role plays which focus on improvement of listening comprehension and guided communication. Separate committees are constituted to cater to the specific needs of students from other states and nations.

Active and Reflective modes of learning are implemented at KLEF. Student-Centric methods such as Lab-taken-to-class (LTC), Learning management system (LMS) and e-Learning resources are implemented. All the programs offered by the university have clearly defined POs, PSOs and COs and the outcomes are assessed through direct and indirect methods, while PEOs are assessed through indirect method. A fully automated examination system employs some modern evaluation methods and rubrics that expedite the processing of evaluation and the declaration of results.

The quality of the Teaching-Learning process is assessed through student satisfaction survey and based on it more innovative practices are introduced from time to time. The involvement of the stake-holders' interest, and the transparency of the system substantially strengthen the teaching-learning systems at KLEF.

## Research, Innovations and Extension

Research has been the prime focus since the inception of KLEF university. The institution is committed to transferring empirical knowledge to applicable reliable practices, replacing individual brilliance with collective, corroborative, societal utility.

The university has identified the necessary infrastructural and intellectual resources for Academic Research, Sponsored Research, Consultancy and Extension. In a two-pronged approach R&D at KLEF has established seven research centres and formalized the research curriculum. All the research centres are provided full-time experienced faculty. Each research centre is headed by a professor Emeritus as mentor with 10 to 15 young faculty as mentees. This facilitates continuous transfer of skills and expertise and enhances the overall research capability.

Publications have taken a quantum step towards quality improvement after specifications regarding Scopus-Indexed journals and cadre-wise targets were released. Substantial increase in publication is noticed with a H-index of 26.

KLEF has established an ecosystem to promote innovations including a centre for Innovation, Incubation and Entrepreneurship development leading to start-ups in different disciplines.

KLEF has initiated promotion of institutional social responsibility through activities undertaken in the neighbourhood rural community. They aim at combining social needs, Professional expertise and skilful implementation of schemes. From 2012 KLEF extension activities centre (EAC) has taken up several initiatives to launch programs involving the faculty, students and the local inhabitants.

The faculty are encouraged to take up projects from Government as well as Non-government Agencies. Till now they have bagged funded projects worth 94.31 crores from NGOs and Rs. 29.01 crores from Government sources.

### **Infrastructure and Learning Resources**

All the organizational units of KLEF are located in 6 blocks. KLEF has Wi-Fi enabled classrooms with LCD projectors Audio-system and with adequate ventilation. The growth of infrastructure keeps pace with academic developments for effective and efficient conduct of academic programmes.

KLEF has a well-organized maintenance department to implement MMS. Major portion of the budget is allocated for augmentation of infrastructure.

In addition, 21% of the budget is apportioned for maintenance of physical and academic support facilities.

A healthy body ensures a healthy mind, KLEF encourages student participation in various sports & games and all necessary facilities are provided.

To help students to explore the instinctive, intuitive and creative energies of students KLEF provides a platform through KLUSO, where cultural interests like histrionics, music and traditional and western dance are showcased.

The three-floored Central library is fully automated and air-conditioned with over 1 lakh hard copies of books and journals, e-books, rare books and databases.

The university has a policy to establish and enhance IT facilities to promote vertical and horizontal mobility for research and advancement in teaching and learning methods. A centralized server is operational 24/7 to provide uninterrupted IT services with a bandwidth of Internet connectivity of 3.155 GBPS. The university provides e-content development such as media centre covering photography lab, production control room, Central computer lab, Audio-recording studio etc.,

The university spends an annual average of Rs.1.26 crores on infrastructural resources and management.

### **Student Support and Progression**

The Dean Student Affairs supports mentors and monitors the progression of students. Welfare measures such as scholarship, fee-waivers etc., are provided by the University in addition to government scholarships. The University takes timely redressal of student grievances and also sexual harassment. Woman security personnel are appointed to attend exclusively to the specific problems of girl students.

The International Students' Cell has been established by KLEF as per the statutory norms. It caters to the requirements of foreign students pursuing academics at KLEF.

A number of capability enhancement schemes such as competitive examinations, career counselling, remedial coaching, communication and soft-skills training etc., have been meticulously designed. These efforts have resulted in 30% students progressing to higher education and 63% students to placements during the last 5 years.

KLEF believes in the maxim 'Today's youth are tomorrow's leaders'. As part of this the university promotes active participation of students in academics, research, extension and social & cultural activities. The student Council/Ordinate of KLEF has 20 students representing boys and girls. It has been hosting sports, technical and cultural fests annually. Student representatives are made members of various bodies, committees and councils of the university, such as DDC, DAC, Library Committee, Canteen Committee, Academic Council etc.

KLEF has an active Alumni Association with 6 chapters across India and 1 in USA. The Alumni Association meets twice-in-a-year and contribute to academic matters, mobilize resources both by financial and non-financial means.

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

KLEF has created a well-defined transparent organizational structure with participative management through decentralization. The structure of Governance facilitates transparency in hierarchy, decision making and implementation of programs policies and practices. The Academic, Executive, Research, IQAC and Administrative wings of Governance have well-designed structure supported by a number of committees, forums and governing bodies. The existing governance helped in establishing clear-cut policies, practices and outcomes as part of perspective planning based on which strategy development and deployment process are initiated.

The governance structure supports a culture of involving members of faculty at all levels of decision-making and implementation. Thus the various levels of good governance provide scope for participative and productive involvement of various key stakeholders of the institution.

Academic Staff College is established for competency enhancement of Faculty and Staff through professional development programs. Faculty are provided with financial support for professional body memberships and to attend conferences. A transparent self-appraisal format separately for teaching and non-teaching staff is developed. KLEF has established procedures and processes for planning allocation and optimum utilisation of financial resources. Strategies for expanding consultancy base, government grants, for mobilization of resources is developed. The university accounts are subjected to internal and external audit twice in a year. IQAC developed quality management strategies in all academic and administrative aspects. These initiatives include collection & analysing of feedback from stakeholders for Improvements, Accreditation and Certification and participation in all rankings like NIRF, AISHE etc.

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

KLEF core values are aligned to its mission and vision and are reflected in the curricular and professional



growth of the KLEF community. Equity as its premier value and a Women's Forum as its mouthpiece, the university promotes gender sensitivity among all stakeholders. Girls are given special counselling to overcome depression, abnormal behaviour etc.,

KLEF has a well-defined Environment policy. The focus is on Renewable energy, Waste management, Rain water Harvesting and Green practices. The aim is to develop awareness of Environmental issues and sustainability. This translated into a healthy increase in reliance on Renewable energy sources.

KLEF builds a safe, healthy and sustainable environment among students, and faculty. Facilities are provided for differently-abled persons catering to their specific needs.

Built in the heart of the agrarian coastal green lands, KLEF enjoys locational advantages, such as eco-friendly, pollution-free environment, that facilitates smooth knowledge transfer, and inspires intellectual and creative enterprise. Another advantage is creation of direct and indirect employment opportunities for the local unemployed youth. Lack of connectivity and lack of industries in the vicinity are major disadvantages. These are partially alleviated through extension and outreach programmes.

The core values and the developments stated above are displayed on the university website. Separate codes of conduct are prescribed for students, teachers, faculty, administrators and all administrative and executive bodies. Academic, administration and financial information is updated on the university website. Promoting a cosmopolitan culture, the university observes National festivals and birth/death anniversaries of great Indian personalities.

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the University	
Name	Koneru Lakshmaiah Education Foundation
Address	GREEN FIELDS, VADDESWAREM,GUNTUR
City	VADDESWAREM
State	Andhra Pradesh
Pin	522502
Website	<a href="http://www.klef.edu.in">www.klef.edu.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Professor	K KOTESWARA RAO	0863-2399999	9866968545	0863-2577717	profkrkolli@gmail.com
Vice Chancellor	L S S REDDY	0863-2399977	9440263649	0863-2388999	registrar@kluniversity.in

Nature of University	
Nature of University	Deemed University

Type of University	
Type of University	Unitary

Establishment Details	
Establishment Date of the University	20-02-2009
Status Prior to Establishment,If applicable	Autonomous College
Establishment Date	06-09-2006

<b>Recognition Details</b>	
<b>Date of Recognition as a University by UGC or Any Other National Agency :</b>	
<b>Under Section</b>	<b>Date</b>
2f of UGC	20-02-2009
12B of UGC	

<b>University with Potential for Excellence</b>	
Is the University Recognised as a University with Potential for Excellence (UPE) by the UGC?	No

<b>Location, Area and Activity of Campus</b>							
<b>Campus Type</b>	<b>Address</b>	<b>Location*</b>	<b>Campus Area in Acres</b>	<b>Built up Area in sq.mts.</b>	<b>Programmes Offered</b>	<b>Date of Establishment</b>	<b>Date of Recognition by UGC/MHRD</b>
Main campus	GREEN FIELDS , VADD ESWAR AM,GU NTUR	Rural	43.56	134950	UG,PG,P h.D		

## 2.2 ACADEMIC INFORMATION

Furnish the Details of Colleges of University

Type Of Colleges	Numbers
Constituent Colleges	0
Affiliated Colleges	0
Colleges Under 2(f)	0
Colleges Under 2(f) and 12B	0
NAAC Accredited Colleges	0
Colleges with Potential for Excellence(UGC)	0
Autonomous Colleges	0
Colleges with Postgraduate Departments	0
Colleges with Research Departments	0
University Recognized Research Institutes/Centers	0

Is the University Offering any Programmes Recognised by any Statutory Regulatory Authority (SRA)	: Yes										
<table border="1"> <thead> <tr> <th>SRA program</th> <th>Document</th> </tr> </thead> <tbody> <tr> <td>PCI</td> <td>100783_1053_6.pdf</td> </tr> <tr> <td>COA</td> <td>100783_1053_18.pdf</td> </tr> <tr> <td>AICTE</td> <td>100783_1053_1.pdf</td> </tr> <tr> <td>BCI</td> <td>100783_1053_8.pdf</td> </tr> </tbody> </table>	SRA program	Document	PCI	100783_1053_6.pdf	COA	100783_1053_18.pdf	AICTE	100783_1053_1.pdf	BCI	100783_1053_8.pdf	
SRA program	Document										
PCI	100783_1053_6.pdf										
COA	100783_1053_18.pdf										
AICTE	100783_1053_1.pdf										
BCI	100783_1053_8.pdf										

### Details Of Teaching & Non-Teaching Staff Of University

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned	147				177				602			
Recruited	133	14	0	147	155	22	0	177	445	157	0	602
Yet to Recruit	0				0				0			
On Contract	0	0	0	0	0	0	0	0	0	0	0	0

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned				771
Recruited	544	227	0	771
Yet to Recruit				0
On Contract	0	0	0	0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned				241
Recruited	195	46	0	241
Yet to Recruit				0
On Contract	0	0	0	0

#### **Qualification Details of the Teaching Staff**

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	82	11	0	92	17	0	36	15	0	253
M.Phil.	0	0	0	2	0	0	5	7	0	14
PG	0	0	0	19	0	0	271	80	0	370

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	47	3	0	17	1	0	4	1	0	73
M.Phil.	0	0	0	2	0	0	10	6	0	18
PG	4	0	0	23	4	0	119	48	0	198

<b>Part Time Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

**Distinguished Academicians Appointed As**

	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Emeritus Professor	0	0	0	0
Adjunct Professor	9	0	0	9
Visiting Professor	2	0	0	2

**Chairs Instituted by the University**

<b>Sl.No</b>	<b>Name of the Department</b>	<b>Name of the Chair</b>	<b>Name of the Sponsor Organisation/Agency</b>
1	NIL	NIL	NIL

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

Programme		From the State Where University is Located	From Other States of India	NRI Students	Foreign Students	Total
Doctoral (Ph.D)	Male	76	66	0	0	142
	Female	43	37	0	0	80
	Others	0	0	0	0	0
UG	Male	2654	275	0	34	2963
	Female	1293	116	0	13	1422
	Others	0	0	0	0	0
PG	Male	238	0	0	0	238
	Female	123	0	0	0	123
	Others	0	0	0	0	0

Does the University offer any Integrated Programmes?	No
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#### Details of UGC Human Resource Development Centre, If applicable

Year of Establishment	01-01-1970
Number of UGC Orientation Programmes	0
Number of UGC Refresher Course	0
Number of University's own Programmes	0
Total Number of Programmes Conducted (last five years)	0

#### Accreditation Details

Cycle Info	Accreditation	Grade	CGPA	Upload Peer Team Report
Cycle 1	Accreditation	3.16	A	<a href="#">NAAC Assessment Report.pdf</a>

## 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

<b>Department Name</b>	<b>Upload Report</b>
Architecture	<a href="#">View Document</a>
Arts	<a href="#">View Document</a>
Bio Technology	<a href="#">View Document</a>
Business School	<a href="#">View Document</a>
Chemistry	<a href="#">View Document</a>
Civil Engineering	<a href="#">View Document</a>
Commerce	<a href="#">View Document</a>
Computer Applications	<a href="#">View Document</a>
Computer Science And Engineering	<a href="#">View Document</a>
Creative Arts And Media Studies	<a href="#">View Document</a>
Electrical And Electronics Engineering	<a href="#">View Document</a>
Electronics And Communication Engineering	<a href="#">View Document</a>
Electronics And Computer Engineering	<a href="#">View Document</a>
English	<a href="#">View Document</a>
Hotel Management	<a href="#">View Document</a>
Mathematics	<a href="#">View Document</a>
Mechanical Engineering	<a href="#">View Document</a>
Petroleum Engineering	<a href="#">View Document</a>
Pharmacy	<a href="#">View Document</a>
Physics	<a href="#">View Document</a>
School Of Law	<a href="#">View Document</a>



### 3. Extended Profile

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#### 3.1 Programme

Number of programs offered year wise for last five years

2016-17	2015-16	2014-15	2013-14	2012-13
51	48	41	37	36

Number of all programs offered by the institution during the last five years

Response : 51

#### 3.2 Student

Number of students year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
13188	11457	10217	9527	9211

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

2016-17	2015-16	2014-15	2013-14	2012-13
2419	2767	2171	2181	1881

Total number of outgoing / final year students

Response : 11419

Number of students appeared in the University examination year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
13064	10763	9386	8704	8350

Number of revaluation applications year wise during the last 5 years

2016-17	2015-16	2014-15	2013-14	2012-13
208	181	185	170	159

### 3.3 Academic

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

2016-17	2015-16	2014-15	2013-14	2012-13
1250	1183	931	804	729

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

**Response : 3346**

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

2016-17	2015-16	2014-15	2013-14	2012-13
926	810	691	636	618

**Number of full time teachers worked in the institution during the last 5 years**

**Response : 1401**

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

**Response : 326**

**Number of sanctioned posts year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
926	810	691	636	618

**Total number of publications during the last 5 years, which are included in online databases such as SCOPUS, web of science or PubMed/ Indian Citation Index**

**Response : 4694**

### 3.4 Institution

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

2016-17	2015-16	2014-15	2013-14	2012-13
57346	43124	46943	37358	36256

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

2016-17	2015-16	2014-15	2013-14	2012-13
2383	1866	1538	1241	1426

**Total number of classrooms and seminar halls****Response : 258****Total number of computers in the campus for academic purpose****Response : 3305****Total Expenditure excluding salary year wise during the last five years ( INR in Lakhs)**

2016-17	2015-16	2014-15	2013-14	2012-13
10109	14838	6646	7535	7249

**Annual lighting power requirement (in KWH)****Response : 910504****Annual power requirement of the institution (in KWH)****Response : 2480170**

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curriculum Design and Development

**1.1.1 Curricula developed /adopted have relevance to the local/ national / regional/global developmental needs with learning objectives including program outcomes, program specific outcomes and course outcomes of all the program offered by the University**

**Response:**

Successful learning and teaching depend on curricula that are transparent and effective in terms of goals, learning activities and assessment of learning outcomes. The outcome statements contain a learning activity that the students need to undertake in order to attain the intended learning outcome.

Outcome Based Education (OBE) is followed and outcomes are identified and drafted in line with the Vision and Mission of Koneru Lakshmaiah Education Foundation (KLEF) and based on the recommendations of various statutory and non-statutory bodies.

At undergraduate level, KLEF offers various modes of study, program choice and combinations of subjects which permit flexibility as students progress. Courses at all levels offer possibilities of breadth and depth in the program and also opportunities for students to showcase innovation, academic and creative flair. KLEF seeks to develop courses and programs of study that reflect the institution's values, goals and mission, that provide an excellent experience for students to learn, discover and fulfill their academic potential, and offer opportunities for students to be 'co-creators' in the learning experience, whilst also securing appropriate academic standards. It is committed to providing programs of study that are career-oriented and are a foundation for long-term study and progression, producing graduates who are engaged, resilient and lifelong learners.

Institution surveys are made during the campus placements. Industrial associations/chambers are helpful in obtaining desired information. Programs are relevant to external needs which equip students to find graduate employment, gain professional advancement or start up new businesses.

The different components of the curriculum design also take into account the priority areas ear-marked by Confederation of Indian Industry (CII), Planning Commission and Higher Education and incorporate the same into the programs giving an insight into the fields where the students have opportunities. A.P. Industrial Infrastructure Corporation (APIIC) of Government of Andhra Pradesh has earmarked 10 thrust areas for greater focus and KLEF curriculum of various programs also considers the same during Curriculum design. It aims to prepare students for their next step including the world of work by

developing their employability, cultivating work-related and transferable skills, and offering opportunities for students to participate in work-based learning, work placement or other work-related learning.

Curriculum Design elements include global/local awareness, through an U.S. Occupational Information Network (O\*NET) as one of the primary sources. Concepts, skills, knowledge and attitudes of international-mindedness, critical thinking skills, research and IT skills are incorporated into the curriculum. The courses for various programs take into account the skill/knowledge parameters that are expected from a student. Design of critical practical laboratory components is carried out based on the technological skill sets as required in the global/local arena.

Thus curriculum design is aimed at every stage to meet the POs, PSOs and COs. The programs are designed to be consistent with international, national and institutional credit frameworks and promoting progression so that the demands on the learner in intellectual challenge, skills, knowledge, conceptualization and learning autonomy increase as students move through a program of study.

### 1.1.2 Percentage of programs where syllabus revision was carried out during the last five years

**Response:** 80.39

1.1.2.1 How many programs were revised out of total number of programs offered during the last five years

Response: 41

File Description	Document
Minutes of relevant Academic Council/BOS meeting	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Details of program syllabus revision in last 5 years	<a href="#">View Document</a>

### 1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development

**Response:** 75.31

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

2016-17	2015-16	2014-15	2013-14	2012-13
971	961	714	615	470

File Description	Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	<a href="#">View Document</a>
Program/ Curriculum/ Syllabus of the courses	<a href="#">View Document</a>
Average percentage of courses having focus on employability/ entrepreneurship	<a href="#">View Document</a>

## 1.2 Academic Flexibility

<p><b>1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years</b></p> <p><b>Response: 28.9</b></p>	
<p>1.2.1.1 How many new courses are introduced within the last five years</p> <p>Response: 967</p>	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
<p><b>1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented</b></p> <p><b>Response: 100</b></p>	
<p>1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.</p> <p>Response: 51</p>	
File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>

## 1.3 Curriculum Enrichment

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

#### Response:

The Institution integrates several cross cutting societal issues into the curriculum.

Following are the efforts made by KLEF in this direction.

#### Gender

Expert Lectures on gender-related issues are regularly organized in the Institution making them aware of some post-modern developments like 3rd wave and 4th wave feminism, and the difference between gender equity and gender equality. This is also a sub-topic of Human Values, a compulsory course prescribed by the University. Keeping in view the growing number of offences against gender at criminal, social, physical, and psychological levels, efforts have been made to introduce the issues of gender into the traditional undergraduate curricula.

#### Environment and Sustainability

At an advanced level, depending on their own area of interest, students may choose either a specific course or a multi disciplinary elective from the list of electives included in the Academic program. The list comprises courses like Environmental studies, Ecosystems, Pollution, Waste management, etc. The curriculum provides the opportunity of going through Environmental Impact Assessment process as well.

#### Human Values

The institution organizes program on Human Values to create awareness among the students. Education for values aims at creating a value – system that contributes to the self-esteem of a person and influences his broader perception, attitudes and intuitive skills. Hence it reaches a sphere beyond the market needs and employability. This kind of holistic education focuses mainly on the emotional and relational skills conducive to the general wellbeing of the society and the world at large. The persistent forces of commercialization and the burgeoning machination of societal ethics and intrinsic creativity of human beings requires adequate counter-balancing ----- a need which was so expertly advocated by social philosophers like Carlyle and Nietchze.

#### Professional Ethics

A course on Professional Ethics is incorporated with special sections on Corporate Ethics, Engineering Ethics, Business Ethics, Environmental Ethics and Personal Ethics. The course aims at providing the students an awareness of the importance of ethics in human society right from the golden era of Aristotle and Plato. It drives into them the subtle differences between morals and ethical principles, sympathy and empathy etc. Whereas moral aspect insists on the principle of moral correctness, ethics function on the principle of social justice and general welfare. The course includes a number of case studies like the nuclear disaster at Chernobyl, the shameful, infamous Bhopal gas tragedy, the horribly inhuman medical experiments conducted on black prisoners in concentration camps in the U.S.A---- where professionals have erred in decision making, and choice of action in performing their duties in the fields of Science, Engineering, Business etc..

These courses are mainly designed to provide awareness required to ensure certain subtle and sensitive adjustments in the process of formation of attitudes of a more generic nature. They also act as signposts that help in avoiding pitfalls in decision-making.

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	<a href="#">View Document</a>

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

**Response:** 373

1.3.2.1 How many new value-added courses are added within the last 5 years

Response: 373

File Description	Document
List of value added courses	<a href="#">View Document</a>

### 1.3.3 Average percentage of students enrolled in the courses under 1.3.2 above

**Response:** 82.67

1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
10627	10410	8214	7380	7740



File Description	Document
Any additional information	<a href="#">View Document</a>
List of students enrolled	<a href="#">View Document</a>

### 1.3.4 Percentage of students undertaking field projects / internships

**Response:** 68.71

#### 1.3.4.1 Number of students undertaking field projects or internships

Response: 9062

File Description	Document
List of programs and number of students undertaking field projects / internships	<a href="#">View Document</a>

## 1.4 Feedback System

### 1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni 5) Parents for design and review of syllabus Semester wise /year wise

**A. Any 4 of above**

**B. Any 3 of above**

**C. Any 2 of above**

**D. Any 1 of above**

**Response:** A. Any 4 of above

File Description	Document
Action taken report of the University on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
URL for stakeholder feedback report	<a href="#">View Document</a>

### 1.4.2 Feedback processes of the institution may be classified as follows:

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

**B. Feedback collected, analysed and action has been taken**

**C. Feedback collected and analysed****D. Feedback collected**

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

File Description	Document
Any additional information	<a href="#">View Document</a>
URL for feedback report	<a href="#">View Document</a>

NAAC

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average percentage of students from other States and Countries during the last five years

**Response:** 5.67

##### 2.1.1.1 Number of students from other states and countries year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1281	895	528	256	273

#### File Description

#### Document

List of students (other states and countries)

[View Document](#)

Institutional data in prescribed format

[View Document](#)

#### 2.1.2 Demand Ratio(Average of last five years)

**Response:** 13.19

##### 2.1.2.1 Number of seats available year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
4816	3770	3108	2506	2883

#### File Description

#### Document

Demand Ratio (Average of Last five years)

[View Document](#)

#### 2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

**Response:** 48.98

##### 2.1.3.1 Number of actual students admitted from the reserved categories year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1181	859	775	596	726

File Description	Document
Average percentage of seats filled against seats reserved	<a href="#">View Document</a>

## 2.2 Catering to Student Diversity

### 2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

#### Response:

Soon after admission a test in general basics like Quantitative Aptitude, Language Skills and Reasoning is administered to assess gaps in learning styles. Students then undergo some bridge courses if required. After the beginning of the B.Tech program they are assessed again and classified as advanced and slow learners.

The groupings are available to the Faculty concerned and to offer him/her the flexibility in classroom organization, choice of teaching tools and one-to-one instruction and in harmonizing and neutralizing disparities and gaps in learning aptitude.

Programmes for Advanced Learners are designed to provide educational advancement through curriculum compacting and topic enrichment. A few courses are delivered more rapidly so that the core courses can be dealt in greater detail with extra activities and assignments. The top performers may be offered grade level advancement. They are offered the advantage of the dual enrolment option.

The advanced learners are encouraged to participate in peer-learning and peer- evaluated activities which will lay a foundation for self-learning. Core courses may have flipped classroom strategy so that active learning students get more time for practice. Faculty provide preparation material in advance to encourage interactive and enquiry method of learning. Faculty share the content for the upcoming class through LMS and conduct a quiz to enhance classroom interactivity and involvement.

The following Active Learning Methods (ALMs) are employed depending on their suitability to the course:

1. Activity based learning
2. Modelling tasks

3. Technical debates
4. Video synthesis
5. Brain storming
6. Peer reviews
7. Peer survey

The slow learners are grouped into separate sections to achieve uniformity of perception and response rates. Remedial classwork is scheduled and bridge courses are conducted. After every internal summative test, remedial classwork is scheduled for a period of two weeks with at least 4 hours of remedial classes per week. The remedial classes are conducted for core courses and also ALMs recommended for slow learners the other courses as per requirement.

1. One minute paper
2. Think/Plan/Share
3. Role play
4. Focussed listening and Listening for specifics
5. Just-in time teaching.

Apart from general improvement initiatives, the following specific strategies are adopted to facilitate advanced learner and slow learner training.

The students are recognized as slow and advanced learners through continuous evaluation process (sessionals /mid-term exams/quiz/surprise tests) and also based on the performance of the students after conducting comprehensive exams based on CGPA/Backlogs.

Slow learners are counselled and corrective measures are taken in terms of the following:

- Special training outside time table hours.
- Work for more hours and solve more assignment questions.
- Grouping slow and advanced learners.

Advanced learners are to participate in the in-house research activities.

- To participate in National level paper contests, seminars and project exhibitions.
- To appoint them as student representatives at the department level committees to develop leadership skills.
- To take specialized training through certificate courses.
- To help slow learners during tutorials.
- To help them prepare for competitive exams like IES, GATE, CAT, etc.

File Description	Document
Any additional information	<a href="#">View Document</a>

<b>2.2.2 Student - Full time teacher ratio</b>	
<b>Response:</b> 14.24	
<b>File Description</b>	<b>Document</b>
Institutional data in prescribed format	<a href="#">View Document</a>

<b>2.2.3 Percentage of differently abled students (Divyangjan) on rolls</b>	
<b>Response:</b> 0.09	
2.2.3.1 Number of differently abled students on rolls	
Response: 12	
<b>File Description</b>	<b>Document</b>
Institutional data in prescribed format	<a href="#">View Document</a>
List of students(differently abled)	<a href="#">View Document</a>
Any other document submitted by the Institution to a Government agency giving this information	<a href="#">View Document</a>

## 2.3 Teaching- Learning Process

<p><b>2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences</b></p> <p><b>Response:</b></p> <p>The importance of student-centric methods and the three principal learning modes is given due weightage in planning the curriculum at KLEF and this aspect is made a regular component in evaluation.</p> <p><b>Participatory Learning:</b> At KLEF, Active Learning Methods (ALMs) like Group Discussions, Workshops, Assignments, think-pair-share etc., help students whose learning style is in sync with Participatory Learning. These student-centric methods take into account the short attention span of the students. Every course has incorporated into it techniques which make the student actively interact with faculty.</p> <p><b>Experiential Learning:</b> ALMs like Lab Taken to Class (LTC), simulations, animations, case studies etc., cater to students who prefer Experiential Learning. In LTC students undertake lab work immediately after completion of the relevant concepts in the classroom. The system employs various techniques like simulations, demonstrations, case studies, etc. in the implementation of LTC.</p> <p>To evaluate students for whom participatory and experimental learning styles are the means to attain course-outcomes, a few components with major project, minor project, the term paper, Internship and</p>
--

Practice school are used.

**Problem Solving Methodologies:** The tutorial components and case study based learning for majority of the core courses focus on enhancing the problem-solving skills. The tutorial sessions provide an opportunity for the students for a one-on-one interaction with the faculty and come up with better solutions for the problems. The availability of the latest platforms like the sensational Hacker Rank throwing challenges in coding and adding enterprise to intuitive learning skills and academic expertise should provide them the necessary edge in becoming globally competitive.

The ALMs and tutorials are planned prior to the commencement of class work and the faculty concerned have a workshop to assure uniformity and equal expertise. Course Handouts give details of activities so that students have a clear vision of the course outcome. Selection of ALMs is made keeping in view the varied learning styles of the students. The digital studio available at KLEF helps faculty develop e-content like video-lectures and animations that support active learning in the classroom.

Thus teaching-learning process at KLEF focuses equally on Active and Reflective Learning styles. Students registered into a course are given an opportunity to take up various active learning components. They get familiar with group activity dynamics as well as hands on experience with necessary tools that indicate their target skills. The active learning components work like a dress rehearsal for their real time assignment involving analytics and problem solving. It provides them with the rare opportunity of having their skills before they are on the actual job.

Evaluation of active learning components is made by KLEF-LMS using the moodle software v3.2. The evaluation is made transparent for ALMs with specific modes of evaluation for all components involved.

With the apt combination of ICT and Active Learning, the teaching at KLEF aims to be completely student-centric, techno-savvy and transparent.

### 2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

**Response:** 100

#### 2.3.2.1 Number of teachers using ICT

Response: 926

File Description	Document
Any additional information	<a href="#">View Document</a>
List of teachers (using ICT for teaching)	<a href="#">View Document</a>
Provide link for webpage describing the " LMS/ Academic management system"	<a href="#">View Document</a>

### 2.3.3 Ratio of students to mentor for academic and stress related issues

<b>Response: 14.8</b>	
2.3.3.1 Number of mentors	
Response: 891	
<b>File Description</b>	<b>Document</b>
Year wise list of number of students, full time teachers and mentor/mentee ratio	<a href="#">View Document</a>

## 2.4 Teacher Profile and Quality

<b>2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years</b>	
<b>Response: 100</b>	
<b>File Description</b>	<b>Document</b>
Year wise full time teachers and sanctioned posts for 5 years	<a href="#">View Document</a>
List of the faculty members authenticated by the Head of HEI	<a href="#">View Document</a>

<b>2.4.2 Average percentage of full time teachers with Ph.D. during the last five years</b>											
<b>Response: 37.44</b>											
2.4.2.1 Number of full time teachers with Ph.D. year wise during the last five years											
<table border="1"> <thead> <tr> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> <th>2012-13</th> </tr> </thead> <tbody> <tr> <td>326</td> <td>303</td> <td>262</td> <td>255</td> <td>226</td> </tr> </tbody> </table>		2016-17	2015-16	2014-15	2013-14	2012-13	326	303	262	255	226
2016-17	2015-16	2014-15	2013-14	2012-13							
326	303	262	255	226							
<b>File Description</b>	<b>Document</b>										
List of number of full time teachers with PhD and number of full time teachers for 5 years	<a href="#">View Document</a>										
Any additional information	<a href="#">View Document</a>										

<b>2.4.3 Teaching experience of full time teachers in number of years</b>	
<b>Response: 11.59</b>	



## 2.4.3.1 Total experience of full-time teachers

Response: 10729

File Description	Document
List of Teachers including their PAN, designation,dept and experience details	<a href="#">View Document</a>

## 2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response: 8.86

## 2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
64	80	55	75	48

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
e-copies of award letters (scanned or soft copy)	<a href="#">View Document</a>

## 2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

Response: 10.78

## 2.4.5.1 Number of full time teachers from other states year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
170	118	81	34	24

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 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 during the last five years

**Response:** 9.8

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

2016-17	2015-16	2014-15	2013-14	2012-13
10	10	10	10	9

File Description	Document
List of programs and date of last semester and date of declaration of result	<a href="#">View Document</a>

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

**Response:** 1.99

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

2016-17	2015-16	2014-15	2013-14	2012-13
220	214	197	188	169

File Description	Document
Number of complaints and total number of students appeared year wise	<a href="#">View Document</a>

### 2.5.3 Average percentage of applications for revaluation leading to change in marks

**Response:** 10.07

2.5.3.1 Number of applications for revaluation leading to change in marks year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
21	18	19	17	16

File Description	Document
Year wise number of applications, students and revaluation cases	<a href="#">View Document</a>

#### 2.5.4 Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system

##### Response:

KLEF has been successful in bringing positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system. The following examination reforms are implemented.

**Reform 1:** For evaluation, answer scripts of both internal and external assessments are distributed among faculty question-wise instead of count-wise.

**Impact:** This reform ensures uniformity in evaluation and greater focus.

**Reform 2:** Question bank is compiled with the concurrence of all course instructors. Care is taken that all the questions fit the identified BTLs. These questions are used in the conduct of internal exams. Questions for each of the internal exams are chosen by experts at random. Similar question bank is prepared for setting external question paper.

**Impact:** This ensures uniform coverage of syllabus, involvement of all course instructors. Prescribed course outcomes can be monitored.

**Reform 3:** The summative test question papers cover all competencies and ensure that there is no choice between competencies. Following UGC norms internal choice among the questions of a competency is provided.

**Impact:** This makes it mandatory for students to prepare for all competencies uniformly. Question paper ensures that all competencies are assessed.

**Reform 4:** The end-semester answer scripts are blind marked with the help of bar coding on the papers. The encoding and decoding the answer scripts is done using ICT and makes the process hassle free, fool-proof & confidential.

**Impact:** The primary goal of this reform is to provide unbiased and uniform evaluation to all students in each course.

**Reform 5:** The summative tests at KLEF are conducted with multiple-level scrutiny prior to framing of the

question paper. Each question paper in the form of a question bank undergoes to ensure that all course outcome indicators are covered in the appropriate BTL levels mentioned in the handbook/course handout. The Examination cell then generates a question paper based on the question bank maintaining confidentiality.

**Impact:** This multi-level scrutiny ensures question papers of expected standards.

**Reform 6:** Fee payment, Issue of hall tickets, exam seating, declaration of results are automated

**Impact:** The examination cell uses ICT substantially reducing repetitive and eliminates repetitive, cumbersome procedures.

**Impact:** Usage of ICT gives scope to all faculties to conduct active learning through continuous evaluation for every topic. The evaluation process is also considerably expedited and made transparent between graders and students by using ICT technology.

**Reform 8:** Unlike traditional examinations confined to paper-based systems, usage of ICT has allowed KLEF to embed videos, pictures, animations, graphs and other e-content in continuous evaluation.

**Impact:** Usage of ICT has helped KLEF to cater to students of varied learning styles. This caters predominantly to visual/spatial learners.

**Reform 9:** Usage of problem solving platforms like code-chef and hacker-rank into mainstream continuous evaluation and open source platforms like git-hub into major and minor projects has allowed students to compete with global audience and work on real-life problems.

**Impact:** The inclusion of such global platforms has raised the quality of students especially when they compete with students from different universities.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.5.5 Status of automation of Examination division along with approved Examination Manual

**A. 100% automation of entire division & implementation of Examination Management System (EMS)**

**B. Only student registration, Hall ticket issue & Result Processing**

**C. Only student registration and result processing**

**D. Only result processing**

**Response:** A. 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	<a href="#">View Document</a>
Annual reports of examination including the present status of automation	<a href="#">View Document</a>
Current Manual of examination automation system	<a href="#">View Document</a>

## 2.6 Student Performance and Learning Outcomes

### 2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

#### Response:

Course outcomes contribute to the realisation of the program outcomes. All the courses delivered as part of various programmes offered by KLEF are aligned with the program outcomes.

The course outcomes are further mapped with the programme outcomes which are aligned with the Blooms Taxonomy Levels (BTLs). Such set of Course outcomes (COs) and associated set of courses help in realising the program outcomes of various programs offered by the University. The program outcomes are identified as per the norms of the statutory bodies such as NBA, ABET, NAAC etc., to meet the global standards as well as the industry.

The course outcomes are identified or assigned as per the content and intent of the course or topics. The learning objectives are taken into consideration while identifying the course outcomes. Generally, a 3-credit course has 4 course outcomes and a 4-credit course with lab component has 5 course outcomes. The lab component of such courses is based on experiential learning.

The course outcomes are planned and designed so as to cover the entire syllabus and the designated competencies. Each course outcome is further divided into 2 or 3 course indicators. The course outcome indicators hint at the abilities to be displayed or performed by the students as a result of the knowledge acquired in the said course. Based on these indicators the assessment pattern and model is designed for both internal and external examinations.

The outcome indicators describe specific understanding and capabilities that students should demonstrate consistently. While administering examinations, care is taken to ensure that learners attempt all identified outcomes. The choice given is limited to within the course outcome and not between the outcomes. The internal tests are planned at the end of every competency or competencies designated to the identified course outcomes.

#### Mechanism of Communication

Course handouts are prepared well in advance before the commencement of the course. The course handout contains, syllabus, list of identified text books and references, learning objectives, course

outcomes, course indicators, mapping with BTL, lesson plan schedule, detailed day-wise session plan, evaluation pattern etc. All the identified course instructors are apprised and trained in the content and intent of the syllabus and the expected outcomes.

The course handout is made available in the website and also posted in the Learning maintenance system (LMS). The same is explained by the instructors in the introductory session at the commencement of the course. The expected course outcomes along with assessment and evaluation pattern are also explained to the students. A few hard copies of the course handout are made available in the central library and also circulated among the students.

File Description	Document
COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>

### 2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

#### Response:

Course outcome attainments are calculated from CO related assessments

#### OBE IMPLEMENTATION & ASSESSMENT

This process has three components.

##### a) Assessment of Course Outcomes (COs)

- Set of assessment tools for courses are identified by respective course coordinators.
- Target and threshold values for each Assessment tool are chosen.
- Course outcome mapping is tabulated to measure the course outcome.

Assessment Method	Course Outcome weightages				
	CO 1	CO 2	CO 3	CO 4	CO5
Continuous Assessment Test	1.	1.	1.	•	•
Active Learning	1.	1.	1.	1.	•
Semester examination	1.	1.	1.	1.	•
Lab Test	•	•	•	•	1.
Lab Project	•	•	•	•	1.
<b>Totals</b>	1.	1.	1.	1.	1.

- Level of attainment of each CO is computed using a web based database viz. 'Inpods' with URL address <http://klu.inpods.com> for the assessment of COs.
- Detailed summary reports of attainment of each CO are presented to the course team and reasons for non-attainment, are analyzed.
- Course Coordinator conducts remedial classes for topics of a CO that are not attained.

- The minutes of meeting on analysis of CO attainment, measures taken for improvement of teaching- learning process in a course are recorded.

#### b) Assessment of Student Outcomes (SOs)

- The COs of a course are mapped to the appropriate SOs.
- Assessment of POs is done in two ways:
  - Direct assessment is based on the achievements in the contributing courses of that PO
  - Indirect assessment is based on the various surveys, Feedbacks and Rubrics
- Weightages chosen for various assessment tools:
  - Direct assessment- CO attainment – 70%
  - Indirect assessment- Exit survey – 30%
- The **direct assessment** of SOs are carried out through the attainment of individual course outcomes (COs) of all the courses of a program.
- Attained value of each CO of all courses is assigned to mapping SOs using the following assignment matrix and all the values are summarized for assessment of SO values.

S. No.	Course	a	b	c	.....	.....	i	j	k
1	Course 1						95.0		
2	Course 2	92.3	92.3						92.3
3		93.2	93.2						93.2
4		92.9	100.0						92.9
5	Course n	90.4		90.9					90.4
<b>Average</b>									

- In **indirect assessment** of SOs the feedback on attainment of technical skills is collected through questionnaire, and due weightage is added to the assessment of PO
- Analysis of this data is used in attainment of SOs through performance targets.
- The Board of Studies recommends on content delivery methods, COs and curricular improvements as and when required.

#### c) Assessment of Program Education Objectives (PEOs)

- Assessment of PEOs is done through indirect method on completion of graduation.
- Each student answers a questionnaire on program capabilities/outcomes and due weightage of this is added in the assessment of the PEO.
- Each PEO is split into measurable elements and appropriate assessment tools are chosen to measure performance indicators.

- Stakeholders as well as a person to analyze the data for assessment of PEOs are identified.
- Level of attainment of each PEO is measured.
- Detailed summary reports are submitted to the Board of Studies of respective programmes for review and recommendations.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.6.3 Average pass percentage of Students

**Response:** 93

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

Response: 2419

2.6.3.2 Total number of final year students who appeared for the examination

Response: 2601

File Description	Document
List of programs and number of students passed and appeared in the final year examination	<a href="#">View Document</a>
Link for annual report	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

**Response:**

File Description	Document
Database of all currently enrolled students	<a href="#">View Document</a>



## Criterion 3 - Research, Innovations and Extension

### 3.1 Promotion of Research and Facilities

**3.1.1 The institution has a well defined policy for promotion of research and the same is uploaded on the institutional website**

**Response:** Yes

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	<a href="#">View Document</a>
URL of Policy document on promotion of research uploaded on website	<a href="#">View Document</a>

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

**Response:** 172.4

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)

2016-17	2015-16	2014-15	2013-14	2012-13
358	210	160	84	50

File Description	Document
List of teachers receiving grant and details of grant received	<a href="#">View Document</a>
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	<a href="#">View Document</a>
Minutes of the relevant bodies of the University	<a href="#">View Document</a>

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

**Response:** 32

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

2016-17	2015-16	2014-15	2013-14	2012-13
6	4	5	9	8

File Description	Document
e-copies of the award letters of the teachers.	<a href="#">View Document</a>
List of teachers and their international fellowship details	<a href="#">View Document</a>

### 3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates, other research fellows in the university enrolled during the last five years

**Response:** 243

3.1.4.1 The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows in the university enrolled year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
73	40	41	41	48

File Description	Document
List of research fellows and their fellowship details	<a href="#">View Document</a>

### 3.1.5 University has the following facilities

1. Central Instrumentation Centre
2. Animal House/Green House / Museum
3. Central Fabrication facility
4. Media laboratory/Business Lab/Studios
5. Research/Statistical Databases

**Any four facilities exist**

**Three of the facilities exist**

**Two of the facilities exist**

**One of the facilities exist**

**Response:** Any four facilities exist

File Description	Document
List of facilities provided by the university and their year of establishment	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link to videos and photographs geotagged	<a href="#">View Document</a>

**3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognition by government agency**

**Response:** 28.57

3.1.6.1 The Number of departments with UGC-SAP, CAS, DST-FIST ,DBT,ICSSR and other similar recognition by government agency

Response: 6

File Description	Document
List of departments and award details	<a href="#">View Document</a>
e-version of departmental recognition award letters	<a href="#">View Document</a>

## 3.2 Resource Mobilization for Research

**3.2.1 Grants for research projects sponsored by the government/non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the last five years(INR in Lakhs)**

**Response:** 215.31

3.2.1.1 Total Grants for research projects sponsored by the government/non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
28.96	110	0.7	34.84	40.81

File Description	Document
List of project and grant details	<a href="#">View Document</a>
e-copies of the grant award letters for research projects sponsored by non-government	<a href="#">View Document</a>

### 3.2.2 Grants for research projects sponsored by the government sources during the last five years

**Response:** 2900.96

3.2.2.1 Total Grants for research projects sponsored by the government sources year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
1210.77	569.01	143.96	384.09	593.13

File Description	Document
e-copies of the grant award letters for research projects sponsored by government	<a href="#">View Document</a>
List of project and grant details	<a href="#">View Document</a>

### 3.2.3 Average number of research projects per teacher funded by government and non-government agencies during the last five years

**Response:** 2.73

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

Response: 3825

File Description	Document
Supporting document from Funding Agency	<a href="#">View Document</a>
List of research projects and funding details	<a href="#">View Document</a>
Link for funding agency website	<a href="#">View Document</a>

## 3.3 Innovation Ecosystem

**3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge**

**Response:**

**KLEF CIIE**

KLEF is one among the pioneering institutes supporting Academics and Research in Engineering, Management, Science, Technology and Architecture. Endowed with adequate infrastructure and experienced faculty, the University has reached a minor milestone in successfully establishing a Centre for Innovation, Incubation and Entrepreneurship(CIIE) mirroring the vision of KLEF.

CIIE was established in 2013 with special focus on four areas - Technopreneurship, Women Entrepreneurship, Rural Entrepreneurship and Social Entrepreneurship.

**Activities**

Till date CIIE has organised more than fifty events on entrepreneurship with Hackathons, ideation programmes, boot camps and domain specific seminars. Further, visits were organised to various entrepreneurship centres across the country. Prominent among them were visits to Centre for Entrepreneurship Development (CED) Hyderabad, Andhra Pradesh Lady Entrepreneurship Association (ALEAP) Hyderabad, National Council of Rural institutes (NCRIs) EOI, Ahmedabad.

The Centre has conducted a 2-day mega start-up event START UP RENDEZVOUS that comprised ideation camps, seminars, panel discussions and a Start Up Expo. Some of the events that received wide attraction were Entrepreneurship awareness and idea generation programmes GOOGLE start up event, STARTUP FEST, startup weekend in association with NASSCOM, idea generation campaigns, Smart India Hackathon, Climathon and design competition.

KLEF's Centre for Innovation, Incubation and Entrepreneurship (CIIE) was proffered the National Business and Service Excellence Award 2016 by Praxis Media in association with Business Synergy. Mr. A .Gopi Raja, 3rd year B.Tech EEE student won the best idea presentation award during the festival organised at Hyderabad in August 2016. He has established Fopple Drones Technologies Ltd, an agricultural drones manufacturing venture.

**Achievements**

Till date 22 start ups have been registered as incubator under CIIE of KLEF varying from technology to E-commerce platforms. The names of the start-ups initiated by the students of the University for the last three years are TECHSTARTINC, FOPPLE REPAIRKAREGA, FIPPLE, ISTRIWALA, SUBRAINI, POROUS, ASPHALI PAVEMENTS, FORMER-PRICE, E-FORKS, PRINTSKOOL.COM, DESIGN ARENA, PRAAAN RAKSHAK, KLUFIN, I-SOLUTIONS, FOOPINE, PLANTSSHIP, SMARTGREEN.

A few start-ups out of 22 have been incubated at KLEF incubation centre with an initial seed fund of Rs.5,00,000/- per each start up and a few more ventures are ready to get funding from the centre. The University's Board of Management(BOM) has approved a budget of Rs. 50 lakhs towards seed funding for the financial years 2016-17 & 2017-18 to incubate start-ups submitted by University's students and stakeholders including faculty, and staff to be set up in the local area of the capital region of Andhra Pradesh.

A few of such start-ups established upto 2016 are:

***PLANTSSHIP, ISTHRIWALA, PRINTSKOOL, HOUSEDEKHO, BROOMPICK SOLUTIONS, FEST SAMACHAR, MISPLACED MINDS, JAGO.***

KLEF has been maintaining an exclusive cell Intellectual Property Rights cell (IPR cell) where 23 Patents have been filed in the last five years.

The beginning, though modest, is sure to have a far reaching effect on the future growth of the University into a research hub.

### **3.3.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry - Academia Innovative practices during the last five years**

**Response:** 60

3.3.2.1 Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
13	11	15	12	9

<b>File Description</b>	<b>Document</b>
List of workshops/seminars during the last 5 years	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

### **3.3.3 Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years**

**Response:** 202

3.3.3.1 Total number of awards for innovation won by institution/teachers/research scholars/students year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
57	45	40	30	30

File Description	Document
List of innovation and award details	<a href="#">View Document</a>
e- copies of award letters	<a href="#">View Document</a>

### 3.3.4 Number of start-ups incubated on campus during the last five years

**Response:** 22

#### 3.3.4.1 Total number of start-ups incubated on campus year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
10	7	5	0	0

File Description	Document
List of startups details like name of startup, nature, year of commencement etc	<a href="#">View Document</a>
Contact details of the promoters for information	<a href="#">View Document</a>
e- sanction order of the University for the start ups on campus	<a href="#">View Document</a>

## 3.4 Research Publications and Awards

### 3.4.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

**Response:** Yes

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

### 3.4.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

**Response:** Yes

File Description	Document
List of Awardees and Award details	<a href="#">View Document</a>

**3.4.3 Number of Patents published/awarded during the last five years****Response:** 23

## 3.4.3.1 Total number of Patents published/awarded year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
12	5	2	2	2

File Description	Document
List of patents and year it was awarded	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.4.4 Number of Ph.D.s awarded per teacher during the last five years****Response:** 0.39

## 3.4.4.1 How many Ph.Ds are awarded within last 5 years

Response: 128

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	<a href="#">View Document</a>
URL to the research page on HEI web site	<a href="#">View Document</a>

**3.4.5 Number of research papers per teacher in the Journals notified on UGC website during the last five years****Response:** 1.25

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

2016-17	2015-16	2014-15	2013-14	2012-13
1338	1136	975	849	396



File Description	Document
List of research papers by title, author, department, name and year of publication	<a href="#">View Document</a>

### 3.4.6 Number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings per teacher during the last five years

**Response:** 1.19

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

2016-17	2015-16	2014-15	2013-14	2012-13
1591	1198	758	557	495

File Description	Document
List books and chapters in edited volumes / books published	<a href="#">View Document</a>

### 3.4.7 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

**Response:** 0.94

3.4.7.1 Total number of citations received by publications in the last 5 years, which are included in online databases such as SCOPUS, web of science or PubMed/ Indian Citation Index

Response: 4431

File Description	Document
BiblioMetrics of the publications during the last five years	<a href="#">View Document</a>
BiblioMetrics of the publications during the last five years	<a href="#">View Document</a>

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

**Response:** 246.17

3.4.8.1 Number of citations received by individual research publications in the last 5 years

Response: 4431

3.4.8.2 Number of publications receiving proportionately maximum number of citation in the last five years

Response: 18

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the University	<a href="#">View Document</a>

### 3.5 Consultancy

**3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual**

Response: Yes

File Description	Document
Soft copy of the Consultancy Policy	<a href="#">View Document</a>
Minutes of the Governing Council/ Syndicate/Board of Management related to Consultancy policy	<a href="#">View Document</a>
URL of the consultancy policy document	<a href="#">View Document</a>

**3.5.2 Revenue generated from consultancy during the last five years**

Response: 271.48

3.5.2.1 Total amount generated from consultancy year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
162.47	69.01	11.04	13.94	15.02

File Description	Document
List of consultants and revenue generated by them	<a href="#">View Document</a>
Audited statements of accounts indicating the revenue generated through consultancy	<a href="#">View Document</a>

**3.5.3 Revenue generated from corporate training by the institution during the last five years**

**Response:** 51.09

3.5.3.1 Total amount generated from corporate training by the institution year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
4.58	2.32	10.47	17.12	16.6

File Description	Document
Audited statements of account indicating the revenue generated through training	<a href="#">View Document</a>
List of teacher consultants and revenue generated by them	<a href="#">View Document</a>

### 3.6 Extension Activities

**3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years**

**Response:**

As part of its academic curriculum, KLEF has initiated promotion of institutional social responsibility through activities undertaken in the neighbourhood rural community. They aim at combining social needs, professional expertise and skilful implementation of schemes. Further they provide students an opportunity to integrate multiple direct benefits like working in teams, working with government/non government bodies and exposure to real time working environment. An indirect benefit is to make students aware of the problems faced by rural community and the need to alleviate them through application of technology. This initiative has resulted in outreach programmes in nearby villages like Gundimeda, Duggirala, Nuttaki, Tadepalli, etc.

The extension activities are undertaken among targeted communities by floating awareness programmes. The most important side of the outreach activities is to inculcate among the students the habit of finding appropriate solutions through their ongoing studies.

From 2012 the KLEF Extension Activities Centre (EAC) has taken up several initiatives to launch programmes involving the faculty, students and the local inhabitants. The impact of the programmes is reflected in the improved living conditions, and a proactive, participative interest among students which augurs well for the future when they handle projects of greater magnitude.

Given below are some major issues taken up, the impact created and student sensitization:

S. No.	ACTIVITY	TECHNOLOGY USED	IMPACT CREATED	STUDENT
--------	----------	-----------------	----------------	---------

			SENSITIZATION
1	KLEF – EAC  Adopted a village (Gundimeda) and provided amenities like roads, mineral water plants and computers for local schools.	1)Water purification Center 2)Laying roads with concrete base 3)Supplying computers for Govt Primary school, Gundimeda	The activities ensured availability of clean water for drinking, reduced damage to roads allowing easy movement of carts. Students of primary school learnt to use computers.
2.	Drones were used for spraying water in farms	Drones	A drone developed by KLEFU students is deployed for spraying water in farms. Uniform spraying achieved. Higher yield realised .
3.	Establishment of skill development centre in association with “Swarnacarparthy”, Bharath Trust”	Technologies related to plumbing, electrification, carpentry etc.,	Unemployed youth trained at this centre were provided employment. Students realized development unemployed youth

IOT related technologies were implemented in the following villages:

S.No	Use of IOT	IMPACT CREATED	STUDENT SENSITIZATION
1	<ol style="list-style-type: none"> <li>GSM Enabled smart pump at Mallempudi.</li> <li>WIFI/Bluetooth enabled smart Communication Board in Duggirala Market yard.</li> <li>SAMRT CARDIAC MONITORING SYSTEM in primary Health Centre at Nutakki, Tadepalli.</li> <li>Wifi based LED scroll board in Mallempudi primary school.</li> </ol>	<p>IOT RELATED TECHNOLOGIES</p> <p>The initiative taken by KLEFU increased communication among the farmers and the buyers of the agricultural products, optimised pumping operations, Health monitoring and Information &amp; Broadcasting for the primary school students.</p>	<p>The students have realized kinds of problems faced by people in the neighborhood the way IOT can be used to solve them.</p>

**3.6.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years**

**Response: 31**

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

2016-17	2015-16	2014-15	2013-14	2012-13
15	9	2	3	2

File Description	Document
e-copy of the award letters	<a href="#">View Document</a>
Number of awards for extension activities in last 5 years	<a href="#">View Document</a>

**3.6.3 Number of extension and outreach programs conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc., during the last five years**

**Response:** 214

3.6.3.1 Number of extension and outreach programs conducted in collaboration with industry,community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc.,year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
118	42	24	19	11

File Description	Document
Reports of the event organized	<a href="#">View Document</a>
Number of extension and outreach programs conducted with industry,community etc for the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.6.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years**

**Response:** 83.68

3.6.4.1 Total number of students participating in extension activities with Government Organisations, Non-

Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
11396	10796	8872	7575	6577

File Description	Document
Report of the event	<a href="#">View Document</a>
Average percentage of students participating in extension activities with Govt. or NGO etc.	<a href="#">View Document</a>

### 3.7 Collaboration

#### 3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange per year

**Response:** 22.8

3.7.1.1 Total number of Collaborative activities for research, faculty exchange, student exchange year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
45	36	15	10	8

File Description	Document
Number of Collaborative activities for research, faculty etc.	<a href="#">View Document</a>
Number of Collaborative activities for research, faculty etc.	<a href="#">View Document</a>
Copies of collaboration	<a href="#">View Document</a>

#### 3.7.2 Number of linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the last five years

**Response:** 784

3.7.2.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
103	143	225	194	119

File Description	Document
Details of linkages with institutions/industries for internship	<a href="#">View Document</a>
e-copies of linkage related Document	<a href="#">View Document</a>
Details of linkages with institutions/industries for internship	<a href="#">View Document</a>

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

**Response:** 65

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

2016-17	2015-16	2014-15	2013-14	2012-13
7	6	9	24	19

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	<a href="#">View Document</a>
Details of functional MoUs with institutions of national, international importance, other universities etc. during the last five years	<a href="#">View Document</a>

## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

#### 4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc

##### Response:

KLEF is spread over 44 acres with total instructional area of 1.5 Lac sq mts. The planning, development, management and maintenance of infrastructure facilities are monitored by Dean planning and development.

The physical space is provided in terms of different blocks, open areas, tree plantations and roads. The campus has 16 blocks, in which are housed various organisational units and one more block is under construction.

The organisational units are designated as – FED block, C-Block, Mechanical block, EEE block, Architecture block, canteens, Lib block, Administrative block, boys hostel, girls hostel, staff quarters, new research block, Indoor sports complex, bike & car park, etc.

The University has academic infrastructure facilities that meet AICTE norms. The augmentation of the physical facilities is in step with the academic growth.

KLU has 168 smart class rooms for UG courses and 72 for PG courses. Each class room is fitted with LCD, audio system, PC, a CC TV and Wi-Fi connectivity. 24 of these class rooms have digital boards. The other infrastructure facilities include four workshops for UG students, 5 computer centres, 4 drawing halls, 1 central Library, 8 Seminar halls and 10 conference halls. In addition to the above each department maintains its own library catering to the specific research and curricular needs of the faculty.

Classrooms are designed for capacities ranging from 40 to 225 students. The majority of them cater to 72 capacity with swing mode seating. There are 12 gallery style classrooms of 200 capacity and a few air-conditioned classrooms with digital boards and content recording facility. There is a recording studio to record lectures. KLEF has 240 academic labs along with 5 special labs. All labs are provided with facilities to conduct 10% excess experiments beyond the curriculum. The University has established special research centres in the following areas:

1. Aerospace engineering
2. Embedded system
3. Atmospheric studies
4. Alternate energy
5. Antennas

Each department has a separate computer lab with 50 systems, in addition to a centralized computing



facility. The total computing lab area is 14871 sq.mts. The equipment to student ratio and the computer to student ratio are maintained as per the statutory norms. Online tests for more than 1500 students can be administered at one go.

The usage of every infrastructure facility that includes classrooms, laboratories, seminar halls, conference halls, auditorium, etc., is scheduled in such a way as to obtain optimum utility. The laboratories required by multiple programs are centrally located and used as per the planned schedules. The lab scheduling is designed considering the capacity of each lab in terms of student occupancy, number of sessions and the number of the lab faculty available.

Periodic audits are conducted to update and keep track of maintenance and occupancy.

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

**Response:**

#### **SPORTS FACILITIES, GAMES & CULTURAL ACTIVITIES**

KLEF believes in the holistic development of an individual. A well equipped sports complex provides indoor and outdoor sports and games for both girls and boys to nurture their sporting talents. There are 33 sports fields to accommodate more than 1000 students. The University also has a yoga centre and a modern gymnasium to provide specialized training to students as well as members of teaching and non-teaching staff.

#### **OUTDOOR COURTS:**

S.No	Description of Sport/Game	Year and date of Establishment	Total Area in Sq Mtrs	Utilization per day
1	Archery	2013-14	13200	2
2	Athletics	2014-15, April	18700	70
3	Basketball	2010-11, Girls court 2016-17	1226.22	60
4	Cricket Nets	2005-06	720	30
5	Cricket	2005-06	49.695	80
6	Football	1990-91	6500	65
7	Handball	2010-11	1056	55
8	Kabaddi	2010-11	208	60
9	Kho – Kho	2010-11	660	55
10	Lawn Tennis	1995-96, 2014-15 modified as cement court	1461.81	65
11	Throw ball	2010-11	360	55
12	Volley Ball	2010-11	2340	90
<b>Total</b>			<b>46,481.03</b>	<b>600</b>

**INDOOR COURTS:**

S.No	Description Sport/Game	Year and date of Establishment	Total Area in Sq Mtrs	Utilization per day
1	Badminton	1995-96	633.36	120
2	Chess	1995-96	64.1	50
3	Carroms	1995-96	49.15	20
4	Table Tennis	1995-96	237.12	55
5	Taekwondo	2015-16	100	25
6	Weight Lifting/	2009-10	49.15	5
	Power Lifting			
<b>Total</b>			<b>1068.78</b>	<b>275</b>

**YOGA:**

Sl. No	Description of Sport/Game	Year and date of Establishment	Total Area in Sq Mtrs	Utilization per day
1	Yoga	1995-96	68.14	60

**GYM FACILITIES:**

S.No	Description of Sport/Game	Year and date of Establishment	Total Area in Sq Mtrs	No of students participating per day
1	Gym Boys	1995-96	161	150
2	Gym (girls)	1995-96	141	50
<b>Total</b>				<b>200</b>

**CULTURAL ACTIVITIES:**

KLEF believes in creating space for students to explore latent talents and provides platform to showcase such creative skills and interests through the specifically created organization KLUSO (KL University Student Ordinate). This consists of the hobby clubs that promote various cultural activities, team skills and management skills. The clubs are:

- AASTHA
- AROHAN
- ABINAYA
- MAYA CLUB
- NARTHANA CLUB
- SAMSKRITI
- PRAKRITI CLUB
- SWARA CLUB
- VACHAS
- YANTRANA

To facilitate information related to various activities and competitions the university has a URL in the website that can be accessed. <https://www.kluniversity.in/kluso/kluso.html>

S.No	Name of the Club	Area	Year Establishment	OfUsers per Day	Strength
1	Aastha Club (Service)	20x15Ft.	2012-13	40	
2	Aarohana Club (Trekking)	20x15Ft.	2012-13	40	
3	Abhinaya Club (Dramatics)	20x15Ft.	2012-13	60	
4	Chitra & Chalana Chitra Club (Photography & Short film Making)	20x15Ft.	2012-13	40	
5	Lekhana Club (Literary)	20x15Ft.	2016-17	40	
6	Maya Club (Animation)	20x15Ft.	2016-17	40	
7	Narthana Club (Dance)	20.6X42.10Ft.	2012-13	70	
8	Prakruthi Club (Nature)	20x15Ft.	2012-13	40	
9	Samskruthi Club (Ethics)	20x15Ft.	2012-13	40	
10	Sodhana Club (Research)	20x15Ft.	2016-17	40	
11	Swara Club (Music)	20.6X42.10Ft.	2012-13	50	
12	Vachas Club (Speaking)	20x15Ft.	2012-13	40	
13	Varna Club (Painting)	20x15Ft.	2012-13	30	
14	Vayana Club  (Knitting & Embroidery)	20x15Ft.	2012-13	20	
15	Yantrana (Technical)	20x15Ft.	2016-17	50	

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

**Response:** 100

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

Response: 258

File Description	Document
Any additional information	<a href="#">View Document</a>
Number of classrooms and seminar halls with ICT enabled facilities	<a href="#">View Document</a>

#### 4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

**Response:** 72.02

##### 4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
5905.89	11216.45	5082.69	5072	5964.86

File Description	Document
Details of budget allocation, excluding salary during the last five years	<a href="#">View Document</a>
Audited utilization statements	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

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

**Response:**

The University Central Library is ideally located providing easy access to all students, faculty & staff from all the departments.

#### 1. Physical Infrastructure:

The Central Library has a three floor fully air-conditioned building with a seating capacity of 1600.

**1. Library Collection:** The Library has a collection of 159653 books with 27867 titles on various subjects and over 28,550 reference books covering atlases, biographies, dictionaries, encyclopaedias, manuals, yearbooks etc. It subscribes to about 500 national and 100 international print journals and 35,662 e-journals, 32 lakhs e-books and holds over 4133 project reports and 53 Ph.D theses.

**1. Library e-Resources:** The Digital Library has 130 computers and subscribed several E-Resources which include 32 lakhs e-books, 35662 e-journals, manuals, reports, standards, and other information from ASCE, ASME, ASTM, Bentham Science Pharma collection, CMIE, EBSCO Art & Architecture (Complete), EBSCO Business Elite, EBSCO Hospitality & Tourism (Complete), GREENR, IEEE, J-Gate Engineering and Technology (JET), JGate Social and Management Sciences (JSMS), LexisNexis, Manupatra, McGrawHill Science & Engineering Access, Nature Biotechnology, Oxford University Press, Science Direct, SCOPUS, Springer, and World E-Books.

The Media Resource Centre with 36 computers has nearly 10328 CDs and DVDs.

### **1. Library Automation and Security**

The central Library employs RFID technology for access control, automatic issue and return of library documents, and stock verification of library holdings. Further the Library has a smoke alarm system, and automated sprinklers in case of fire accidents and emergency exits etc.

**a) Name of the ILMS software:** The library has Koha: An Open source Library

Management Software

**b) Nature of automation (fully or partially):** Fully Automated with RFID technology

**c) Version:** Koha 16.11.01

**d) Year of automation:** 2000

### **1. Enrichment of Library during 2012-2017**

Library had automation with Barcode using ERP Library Module and the Digital Library had 40 computers for access of E-Resources. The Library provided services like Reference Service, Photocopying Service, Digital Library Service, Resource Sharing (Inter Library Loan) Service, Web OPAC and the newspaper clipping services were initiated during 2012-13. During 2013-14, the Library developed a Separate Library web-portal which connects E-Journals, E-Books, Databases etc., A separate dedicated IP address has been provided for access of NPTEL Lecture and Web courses and Library organised User Education Program for the students.

Library has enhanced the number of systems in the Digital Library with 90 computers. Library provided Institutional Repository services using DSpace: A Digital Library software and all the documents published in the University are made available in the digital form.

Library is upgraded to provide quality Library services using ICT and provides RFID Security and Surveillance Systems. Check-in, searching for titles, issues and check-outs are automated with RFID Library Management System.

Membership has been obtained for British Council Library, Hyderabad to access language and literature collection. Further, the Library has become the Institutional member in Current Science, INFLIBNET e-Shodhsindhu, and established NPTEL Local Chapter.

#### **4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment**

##### **Response:**

Rare Book collection of the KLEF University consists of books, manuscripts, and reports maintained in the Central Library to support the information needs of the students, faculty and the research scholars for their specific study and reference purposes.

##### **1. Rare Books**

The Central Library holds about 1500 books in its rare book collection from 1800, available in the form of e-book collections and in the Institutional Repository. They include the documents on Indian Constitution, Britain & Russian constitutions, Ancient Indian culture, various regimes, dynasties, cultures, religions and subjects like astronomy, economy, literature, science and Technology etc.

## 2. Manuscripts

The Central Library has about 50 manuscript collections and most of them are available in the form of e-resources. The same are made available in the Institutional Repository. Some of the manuscripts and reports published by MHRD, Ministry of Environment and Forestry, United Nations Publications, Ministry of Information and Broadcasting, Govt. Of India and WTO are available.

## 3. Other Knowledge Resources

The Central Library holds about 750 knowledge resource collections from the year 1800 and these books are available in the form of e-books in the Institutional Repository. These knowledge resources include Dictionaries, Encyclopaedias, Handbooks, Manuals on General, Language, Literature, Religion, History, World Wars, Science, Engineering, Technology, etc.

## 4. Reference Books

Central Library has a rich collection of over 28,550 reference books covering atlases, biographies, dictionaries, directories, encyclopaedias, handbooks, manuals, yearbooks, as well as other reference books. Some of the high value books and titles of text books are also added to reference collection, the latter for helping students access even when all text books are in issue. Apart from general encyclopaedias and language dictionaries, the library has subject encyclopaedias in science, technology, humanities and social sciences.

**5.National Digital Library of India:** Ministry of Human Resource Development under its National Mission on Education through Information and Communication Technology has initiated the National Digital Library of India (NDL India) pilot project to develop a framework of virtual repository of learning resources with a single-window search facility. The Central Library is an Institutional Member in NDL and the resources of NDL are being accessed by the students and staff.

## 6. Reading Lists/ Bibliographic Compilation

The Central Library receives subject bibliographies from various publishers and the same are being sent to the departments concerned periodically for their reference and recommendations. Further, The Central Library is an Institutional Member in DELNET and it maintains an online Union Catalogue of books available in its member-libraries. This Union Catalogue is continuously updated and is growing in size. The information can be retrieved by author, title, subject, conference, series, etc. It has **2,51,90,300** bibliographic records. The request for inter-library loan can be placed through the DELNET online system.

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 4.2.3 Does the institution have the following

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases

Any 4 of the above

Any 3 of the above

Any 2 of the above

Any 1 of the above

**Response:** Any 4 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc.	<a href="#">View Document</a>

#### 4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

**Response:** 126.15

4.2.4.1 Annual expenditure for purchase of books and journals year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
196.09	194.2	79.49	96.79	64.20

File Description	Document
Audited statements of accounts	<a href="#">View Document</a>
Details of annual expenditure for purchase of books and journals during the last five years	<a href="#">View Document</a>



<b>4.2.5 Availability of remote access to e-resources of the library</b>	
<b>Response:</b> Yes	
<b>File Description</b>	<b>Document</b>
Details of remote access to e-resources of the library	<a href="#">View Document</a>

<b>4.2.6 Percentage per day usage of library by teachers and students</b>	
<b>Response:</b> 11.19	
4.2.6.1 Number of teachers and students using library per day over last one year	
Response: 1580	
<b>File Description</b>	<b>Document</b>
Details of library usage by teachers and students	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

<b>4.2.7 E-content is developed by teachers :</b>	
<ol style="list-style-type: none"> <li>1. For e-PG-Pathshala</li> <li>2. For CEC (Under Graduate)</li> <li>3. For SWAYAM</li> <li>4. For other MOOCs platform</li> <li>5. For NPTEL/NMEICT/any other Government Initiatives</li> <li>6. For Institutional LMS</li> </ol>	
Any 5 of the above	
Any 4 of the above	
Any 3 of the above	
Any 2 of the above	
<b>Response:</b> Any 2 of the above	
<b>File Description</b>	<b>Document</b>
Details of e-content developed by teachers for e-PG-Pathshala, CEC (UG)	<a href="#">View Document</a>

## 4.3 IT Infrastructure

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

**Response:**

KLEF University has a policy to create and enhance IT facilities to promote vertical and horizontal mobility for Research and also advancement in teaching learning methods.

A centralised server that is operational 24/7 is maintained regularly to provide uninterrupted IT services for students and staff. The university has firewalls in place to prevent hacking and cybercrime.

The Lan firewalls provide limited access thereby protecting sensitive data. All the data is maintained in the centralised server to prevent data loss. Adequate measures are taken to prevent the risk of data corruption. Protection against hacking and other information security threats is also ensured.

The University updates IT facilities regularly. New labs for mechanical and civil engineering departments were established with 108 HP Systems, AMD processors, 4 GB RAM, 500 GB HDD, during 2012-13 year.

During the year 2013-2014, HPC is installed which provides cloud environment within the campus. A majority of services like internet, e-mail services CCTV monitoring etc., are provided by the DATA CENTER which houses IT Networks, Infrastructure in the campus.

During 2014-15, "Cyber roam firewall" (CR 2500 ING-XP) has been purchased. It is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules.

During the academic year 2015-16 Architecture Lab was established. In 2016-2017 Elite Lab is established.

The University has a 24/7 Wi-Fi facility for students and faculty members to avail internet connection in

the campus, hostel & staff quarters. The connectivity through a fully networked campus with state-of-the-art IT infrastructure, computing & communication resources, offers students the facilities of e-mail, net surfing, up/down loading of web based application, besides helping them in preparing projects & seminars.

KLEF has State-of-the-Art Data Centre with advanced servers provides highly interactive learning environment with full fledged hardware and software training facilities.

The detailed information related to upgrading of IT facilities are provided under any additional information.

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 4.3.2 Student - Computer ratio

**Response:** 3.99

File Description	Document
Student - Computer ratio	<a href="#">View Document</a>

#### 4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

<50 MBPS

250 MBPS-500 MBPS

50 MBPS-250 MBPS

500 MBPS - 1 GBPS

**Response:** ?1 GBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	<a href="#">View Document</a>

#### 4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Facilities for e-content development such as Media Centre, Recording facility,LCS	<a href="#">View Document</a>
Link to photographs	<a href="#">View Document</a>

#### 4.4 Maintenance of Campus Infrastructure

##### 4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

**Response:** 7.15

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)

2016-17	2015-16	2014-15	2013-14	2012-13
950	698	571	522	444

File Description	Document
Audited statements of accounts.	<a href="#">View Document</a>
Details about assigned budget and expenditure on physical facilities and academic facilities	<a href="#">View Document</a>

##### 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:**

KLEF Maintenance Management System is subdivided as Physical, Academic and Support facilities.

##### **PHYSICAL FACILITIES**

Maintenance and Construction inspectors conduct check buildings, landscape, equipment, etc.

##### **INFRASTRUCTURAL FACILITIES**

Course-work Facilities

Class rooms, Labs, Seminar Halls, Library

## Support Facilities

Canteen, Transport, Hostels, Guest House, Bank and Post Office

## Utilities

Electricity, Water, Communication

## Welfare Facilities

Refreshing Rooms, First Aid, Transport

KLEF MMS follows standard procedures like *Maintenance request-Service-Satisfaction and feedback* cycle for all repairs and services undertaken.

Physical facilities comprise General maintenance, Environmental services, Building trades, Horticulture, Electrical maintenance etc.

## **Directives and Procedures in force**

### Capital Planning and Implementation

Procurement and Purchase

Inventory Disposal of Surplus Furniture and Equipment

Item Request Raise and Allotment Steps

Shifting and

Lock and Key Control

Maintenance Request Procedure

Satisfaction and Feedback Report

The additional special services include Shifting and Moving, Life Safety Services.

The Central Library has following procedures in place

[Providing and employing suitable tools for the display of library books](#)

- 1.OPAC
- 2.Implementation of ERMP for E-journals
- 3.Operating Library Website

## ICT deployment in library

- 1.Library Automation
- 2.Development of Institutional Repository

## Stock verification

### A.Software Maintenance

All software is purchased through Associate Dean IT with a support and maintenance contract.

### B.Computers, Servers and Network Management

#### Servers and Systems

#### Virus Detection

#### User Access Management

#### Systems Development and Maintenance

### Grounds & Custodial Services

#### Offices

<b>Service</b>	<b>Frequency</b>
Cleaned	Weekly
Walls and doors	
Empty wastebasket,	
Furniture dusted	
Floors or carpet: dust mop and wet mop or vacuum	
Carpet cleaning/shampooing	By request

**Stairwells**

Service	Frequency
Cleaning Stairwells, Handrails, Steps and landings sweep and wet mop high and low dusting	Weekly

**Restrooms**

Checking Dispensers fully supplied and operating properly	Daily
Disinfecting all Washbasins and restrooms	
<b>Cleaning Mirrors, Partition doors and walls</b>	
Toilets and urinals, Refuse emptied and liner replacement	
High and low dusting	Weekly
Strip and re-seal floor	

**Laboratories**

Service	Frequency
Dust mop and wet mop floor, High and low dusting	Weekly
Empty wastebaskets	Bi-weekly
Student Health-check rooms	Disinfected daily
Window, Carpet cleaning	By request

**Grounds Services**

Service	Frequency
Mow lawns, cleaning walkways	Weekly
Prune foundation shrubs, Edge lawns,	Fortnightly
Irrigation	Scheduled to meet plant needs, repairs as needed
Exterior refuse-containers including refuse component of recycle clusters	Checked Monday thru Friday, liners replaced daily or thrice a week

**Building Maintenance Services**

Service	Frequency
Heating, ventilating and air-conditioning equipment	When needed
Replacing light bulbs, switches, circuit-breakers, fixtures, wiring, Plumbing fixture repairs	As needed
Repairs to doors windows, ceiling, floor tiles	As needed
Window washing, Interior painting, Exterior pavement pressure washing	on request
Roof repairs, Elevator maintenance	As needed
Safety Equipment	As required by equipment
Wall-mounted fire-extinguishers	Inspected monthly

### Entrance Lobbies, Hallways and Elevators

Service	Frequency
Floors wet- mopping	Bi-weekly
Walls free of dust and soil	As needed
Cleaning entrance doors, glass, handles, frame and mats	Daily
Cleaning floors, wastebins, elevators	

### Classrooms, Lecture Halls and Conference Rooms

Service	Frequency
<b>Cleaning Classrooms, Lecture Halls and Conference Rooms, Chalkboards</b>	Daily
Floors dust mop, wet mop, High and low dusting	
Graffiti removal	
Emptying wastebaskets and replacing liners	

**The detailed Maintenance manual is uploaded under Any additional Information.**



## 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 the last five years

**Response:** 0.28

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
77	48	19	0	19

File Description	Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	<a href="#">View Document</a>
Upload self attested letter with the list of students sanctioned scholarships	<a href="#">View Document</a>

#### 5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

**Response:** 77.65

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
9668	8714	8030	7645	7374

File Description	Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	<a href="#">View Document</a>

#### 5.1.3 Number of capability enhancement and development schemes –

- 1.Guidance for competitive examinations
- 2.Career Counselling
- 3.Soft skill development
- 4.Remedial coaching
- 5.Language lab
- 6.Bridge courses
- 7.Yoga and Meditation
- 8.Personal Counselling

7 or more of the above

Any 6 of the above

Any 5 of the above

Any 4 of the above

**Response:** 7 or more of the above

File Description	Document
Details of capability enhancement and development schemes	<a href="#">View Document</a>
Link to Institutional website	<a href="#">View Document</a>

#### 5.1.4 Average percentage of students benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

**Response:** 58.67

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

2016-17	2015-16	2014-15	2013-14	2012-13
9383	7294	6261	4927	4196

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	<a href="#">View Document</a>

#### 5.1.5 The institution has an active international students cell to cater to the requirements of foreign

## students

### Response:

KLEF University has established an office of International Relations which has a two-pronged approach to acclimatize the overseas students on the campus and of creating global opportunities for the local aspirants. The general statutory norms are followed for deciding the eligibility and admission of International students to various courses offered in KLEF.

The cell looks into all the issues and welfare of the foreign students. It performs all the duties required for pleasant stay and day-to-day needs of the international students.

The ISC (International Student Cell) guides the students in getting Medical certificates, Health Insurance as well as registration at the FRO (Foreigner's Registration Office). The cell helps in processing the documents for foreign students for sanction of scholarships from their native country or organization. Further details like providing introduction and all such other help are provided to open accounts in the local banks. It arranges the pickup from the airport as well as transport to various places as per the requirement. It takes care of all the formalities to be fulfilled in visa processing. The cell ensures that whenever the overseas students go on outings a local person escorts them to help in translating the local language.

The International students' cell gives timely advice to make all the overseas students feel at home. The cell further strives for the welfare of the overseas student community, organizes interactive discussions, seminars, programs on the themes of cultural integration, assimilation and appreciation, highlighting through a practical interface the idea of 'unity in diversity'. In addition the cell provides support services to the foreign students. A few cultural interactions are conducted to let the students get a feel of the local culture and traditions.

The cell takes up all the work related to guidance and counselling and provides them the much-needed tips on how to conduct themselves. It organizes a few orientation programs to acclimatize themselves to the new environment. Extensive advice is provided about food health and hygiene. All the necessary facilities and equipment are provided to the foreign students in case they express their desire to prepare their own food.

Further the cell works towards establishing collaboration with universities, institutes, organisations, industries across the globe to facilitate activities including student/faculty exchange, collaborative research, joint conferences etc.

The International Student Cell explores the possibilities of doing a few courses under credit transfer system in International Universities as part of the semester abroad scheme.

International Student Cell gives the students an option to visit Latrobe University, Australia as a part of

study tour and attend the classes of International Professors for a period of 7-10 days.

[www.klef.edu.in/ir/wta.aspx](http://www.klef.edu.in/ir/wta.aspx)

### 5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

**Response:** Yes

File Description	Document
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 5.2 Student Progression

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

**Response:** 64.16

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

2016-17	2015-16	2014-15	2013-14	2012-13
1977	2140	1657	872	854

File Description	Document
Self attested list of students placed	<a href="#">View Document</a>
Details of student placement during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

**Response:** 8.97

#### 5.2.2.1 Number of outgoing students progressing to higher education

Response: 217

File Description	Document
Details of student progression to higher education	<a href="#">View Document</a>
Upload supporting data for student/alumni	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 5.2.3 Average percentage of students qualifying in state/ national/ international level examinations during the last five years (eg: NET/SLET/GATE/GMAT/CAT, GRE/TOFEL/Civil Services/State government examinations)

Response: 62.69

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

2016-17	2015-16	2014-15	2013-14	2012-13
212	131	84	120	68

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

2016-17	2015-16	2014-15	2013-14	2012-13
288	203	149	177	133

File Description	Document
Number of students qualifying in state/ national/ international level examinations during the last five years	<a href="#">View Document</a>
Upload supporting data for the same	<a href="#">View Document</a>

## 5.3 Student Participation and Activities

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

years

**Response:** 298

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

2016-17	2015-16	2014-15	2013-14	2012-13
92	65	57	53	31

File Description	Document
e-copies of award letters and certificates	<a href="#">View Document</a>
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	<a href="#">View Document</a>

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

**Response:**

#### STUDENT COUNCIL

KLEF University has a student council comprising 20 student representatives (10 each of boys & girls). Of these 10 members are selected on the basis of academic performance as well as various literary competitions. The other 10 members are nominated by the respective Heads of the Departments. Student Council is a central body which monitors the academic, co curricular and cultural events like Samyak, Surabhi, NSS and NCC and all the other events organised in and around the University campus. The Student Council plays an active role in scheduling and implementing these programmes and also in mobilizing the infrastructural and manpower requirements for the conduct of various State-level or National-level festivals.

Apart from the Student Council, the University has various committees with adequate student representation.

#### BOARD OF STUDIES

Committee members including student and Alumni nominees meet once every semester. Experts from

Academia, and the Industry, Professors in the Department, Professor from a national university, student members and alumni of the department finalize the curriculum for the coming academic year based on the feedback and suggestions of the Expert Committee.

The student nominees play an important role in providing the feedback from the students on such aspects as the length and duration of the syllabus, the relevance of the topics, the need to include any new topics, etc.

The Board of Studies is supported by feeder committees with the DAC (Departmental level Academic Council) and the DDC (Departmental Level Development Committee). These bodies have adequate representation of students who provide feedback on the syllabi and implementation.

#### **LIBRARY ADVISORY COMMITTEE**

The Library Advisory Committee members meet once every month to discuss availability of books, periodicals and journals and procurement of new titles. Students representing all branches are made members. Opinion of the students on matters related to adequacy and availability of books, e-resources, new titles and other facilities are considered.

#### **HOSTEL ADVISORY COMMITTEE (BOYS & GIRLS)**

The Boys' and Girls' Hostels have separate committees. The members including student representatives meet once a month to discuss issues as per agenda and initiate remedial actions. The various sub-committees in each of these hostels are Food Committee, Maintenance Committee, Discipline Committee, etc.

#### **TRANSPORT ADVISORY COMMITTEE (Girls & Boys)**

The Transport Advisory Committee including student representatives meet once a month to sort out the grievances like adequacy of seating, timings, extension of service, providing additional stops, etc.

#### **SPORTS ADVISORY COMMITTEE**

Members of the committee, including student representatives, meet once a month and take up agenda items like existing facilities, forthcoming tournaments, scheduling of practice timings to various departments, coaching facilities, etc.

**CANTEEN AND CAFETERIA COMMITTEE**

Members of the committee including student representatives meet once a month to discuss various points related to food quality, taste, hygiene levels, pricing of items, etc.

**5.3.3 Average number of sports and cultural activities / competitions organised at the institution level per year**

**Response:** 30.2

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
46	29	26	24	26

File Description	Document
Number of sports and cultural activities / competitions organised per year	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

**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 non financial means during the last five years**

**Response:**

Alumni are one of the main stakeholders of the KLEF. They contribute immensely to the development of the university in multiple dimensions. KLEF Alumni Association is formed in 2013. As on date it has established 6 chapters in India and 1 in the USA. Every chapter has an administrative setup to provide interface with the alumni in the neighborhood.

KLEF Alumni are contributing to the university financially, academically and to carry out research. Till date Rs. 101 Lakhs were contributed towards the development of Labs, Research Centers, Research Fellowships, Medals and Awards to students, etc. Alumni have also contributed immensely as members of BOS and DAC, delivering Guest lectures, offering Intern-ships, assisting in Placement, organizing Industry visits and also assisting students to get admissions into reputed Universities Abroad.



KLEF Alumni are providing mentoring services to the students of the University by holding one to one interaction with the students. They have become influential in making the students understand the industry-institute gap and also the way to plan and shapeup one's own career in right direction . Alumni from local chapters are maintaining rich alumni database with all the details that have been influential in making the students to understand various business opportunities and providing all the support required for preparing them to become entrepreneurs and to know the current dynamics of the industry.

The University is conducting alumni based events for each of the batch which has completed 25 years after their graduation. During the events, Alumni are showcasing their profiles and growth verticals to the present students. Alumni are influential in introducing the outcome based education in the University and nurturing professionalism and Industry-readiness.

Alumni are invited to participate in their respective BOS. Alumni contributed extensively in bridging the gap between industry requirements and academics by reviewing & restructuring syllabi. They insist on the need for tool based learning, conducting LAB as if a project is being done in industry front. They recommended moderating the delivery of Academics such as experiential learning. The faculty-centric learning is changed to student centric learning.

Alumni deliberated on concentrating on industry based research projects and undertaking consultancy based on the expertise of the faculty and the kind of research labs supported by the University. They have helped the University in bringing in funding from non-governmental organizations. The Alumni working at reputed institutes located globally are helping research scholars in their research and developmental activities, through faculty development programs to faculty.

Alumni are providing necessary support and encouragement to develop quality standards that could be used to enhance and raise the quality of delivery of educational system. Alumni have helped the university in developing a comprehensive ERP system that provides administrative and functional assistance. The cloud based computing was setup in the university under the knowhow and expertise of the Alumni.

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

#### 5.4.2 Alumni contribution during the last five years (Amount in rupees)

<5 Lakhs

**5 Lakhs -20 Lakhs**

**20 Lakhs -50 Lakhs**

**50 Lakhs -100 Lakhs**

**Response: ? 100 Lakhs**

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>
Alumni association audited statements	<a href="#">View Document</a>

#### **5.4.3 Number of Alumni Association / Chapters meetings held during the last five years**

**Response: 70**

##### 5.4.3.1 Number of Alumni Association /Chapters meetings held year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
14	14	14	14	14

<b>File Description</b>	<b>Document</b>
Number of Alumni Association / Chapters meetings conducted during the last five years.	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

## 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 University

##### Response:

##### Vision

To be a globally renowned University

##### Mission

To impart quality higher education and to undertake research and extension with emphasis on application and innovation that caters to the emerging societal needs through all-round development of students of all sections enabling them to be globally competitive and socially responsible citizens with intrinsic values.

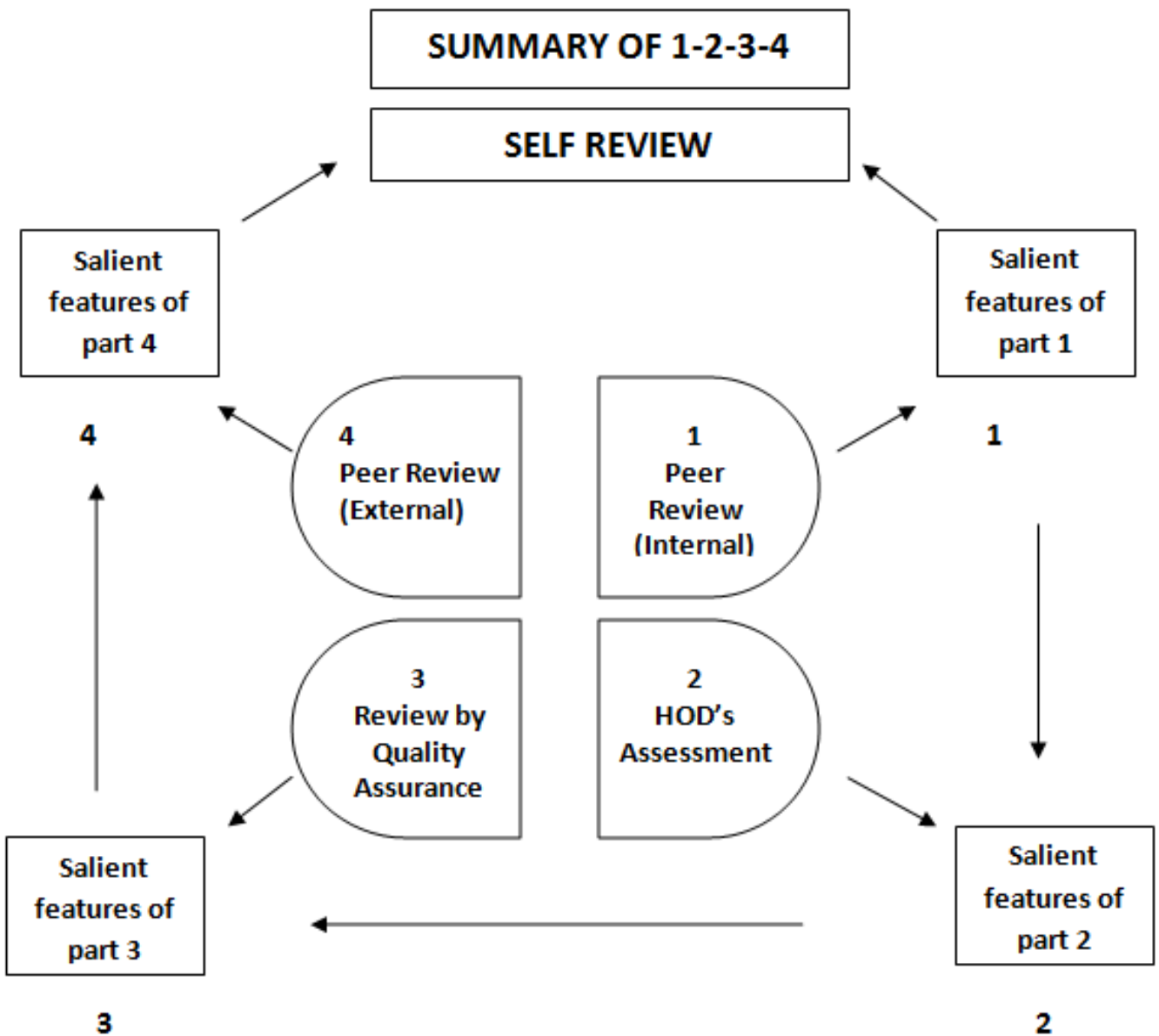
##### Nature of Governance

The structure of Governance at KLEF facilitates transparency in hierarchy, decision making and implementation of programs, policies and practices. The Academic, Executive, Research, IQAC and Administrative wings of Governance have well-designed structure and are supported by a number of committees, forums and governing bodies. All these supporting bodies have developed sound governance guidelines.

Governance at KLEF has followed four salient features –

1. Goal support for governance by fulfilling the development needs of committees.
2. Ensuring that all committees and institutions supporting good governance develop their own governance guidelines.
3. Conduct of self reviews to examine the impact of good governance from term to term.
4. Study of good governance models and sharing of this knowledge with peer competitors.

The following self-review model provides effective implementation of assessment remedial measure cycle. Four feeder reviews provide the inputs for a comprehensive self-review.



### Perspective Plan

The aims and objectives are aligned to the plan segments of the governing body to translate the vision and mission into attainable goals of the institution with ten year projections. The individual plan segments like, Academics, Research, Outreach, Global competency and Ethics are included in the perspective plan which is used as reference in conducting various activities at the micro level.

Every component of the academic system is designed to reflect the growth rates expected. Planning includes both resource allocation and financial estimates so that the plan segments provide targets and clarity in precise and intelligible decision – making to both functional and administrative authorities of the University. Best cost-effective strategies are worked out for implementation of each plan segment keeping it in tune with overall vision and mission of the institution. Emerging trends, competitiveness, manpower availability, Future national and international trends are some of the extraneous factors that influence and iron out the mega planning processes at the University.

### TEACHER, ALUMNI PARTICIPATION

Forums, Committees and Cells constituted for planning, monitoring and implementation of various components of Academics, Research, Extension programs comprise members of faculty and the alumni. All issues related to various segments are discussed thoroughly by the faculty and appropriate decisions are arrived at and passed to the Chair concerned for further action. The governance structure supports a culture of involving members of faculty at all levels of decision-making and implementation.

Thus the various levels of good governance provides scope for participative, and productive involvement of various key stakeholders of the institution.

### **6.1.2 The institution practices decentralization and participative management**

#### **Response:**

KLEF University has a well laid practice of decentralization and participative management. Different committees, boards, councils, forums and cells are constituted viz., Board of Management, Academic Council, Board of studies, Research Board, etc.

The roles and responsibilities of office bearers and authorities and the structure of such organisational units are defined at the time of formation as per the UGC regulations. The members of various organisational units are nominated from different disciplines basing on their individual interests, preferences and competencies observed. Students are also nominated to the departmental and university level units to contribute and participate in the discussions related to various academic and administrative issues and matters. The necessary actions to be taken are deliberated further.

Planned and scheduled working, coordinated discussions, agenda based discussions, recording resolutions, entrusting responsibility and follow up with actions to be taken etc., are practised in the organisational units. Every member is free to express views and opinions within the laid boundary line. However, the decision of the chairperson of the organisational unit remains final and binding.

A case study showcasing the practice of decentralization and participative management in KLEF University is discussed below.

To ensure the realisation of vision and mission of the University, the design and development process of curriculum is initiated with need analysis that takes into consideration the stated customer needs, implied needs, overall goals of the university and statutory requirements of bodies like AICTE, UGC MHRD, etc. Dean Academics provides a general framework of curriculum for each of the programmes. He considers the recommendations of the statutory bodies, student workload, all round development and competitiveness of the students, active learning methods, global, regional and local needs, evaluation patterns etc. The same is appraised to the HoDs of departments.

Every department in the university takes into cognizance the feedback of all the stakeholders such as students, parents, employees, peers, course instructors, course coordinators and invites suggestions and modifications. Two committees are constituted at department level. DAC (Department Level Academic Council) and DDC (Department Level Development Council).

Based on the deliberations of DAC & DDC new requirements are identified and a statement of changes

required for updating curriculum is prepared. DAC gives these inputs and the infrastructural requirements to Board of Studies (BOS) for consideration and approval of changes. The BOS deliberates the same and forwards it to the Dean Academics for further action.

The Dean Academics reviews the submission and synchronises into the University framework such as the limit of teaching hours, credits for the programme, etc. The Dean Academics with necessary suggestions reverts the same to the department in case of mismatch with University stipulation for further changes. The BOS again deliberates on the recommendations suggested and incorporates necessary changes. The BOS recommendations are once again forwarded to Dean Academics for versioning, monitoring and placing the same in Academic Council (AC) for approval. The same is forwarded to the BOM for final approval and implementation.

## 6.2 Strategy Development and Deployment

### 6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

**Response:**

#### **QUALITY IMPROVEMENT IN FACULTY PUBLICATIONS**

##### **PLAN ELEMENT**

One of the plan elements included in the perspective plan is the number of publications indexed in Scopus, Indian citation index and other indexing databases. A target of five papers per faculty over five years has been fixed as benchmark for achievement in publications. Several strategies have been implemented to realize the above target.

Some salient features of this plan are that the publication norms have been fixed for faculty working in various cadres. Professors should publish 3 papers per year, Associate professors 2 papers per year and Assistant professor one paper per year. These targets apply for all faculty who have put in two years of service.

##### **STRATEGIES**

The following strategies in planning and implementation have been followed to achieve the above targets.

##### **RESEARCH GROUPS**

Research areas related to emerging areas, national priorities, and critical areas have been identified. Then students are formed into research groups and qualified faculty are attached to each of such groups. Each research group is given a list of journals and conferences in which they have to publish their research articles. A research group is allotted a senior professor to provide guidance in research and publications. The smooth 2-way flow of information and ideas has enhanced overall research thrust as it cuts on unfruitful individual searches and wastage of time.

##### **PUBLICATION/RESEARCH GUIDELINES**

Term papers, B.Tech/M.Tech projects, Ph. D projects are entrusted to the Research group of the same subject area to which the students belong. After due completion of prescribed number of courses that include term papers, B.Tech/M.Tech projects each student should publish at least one article in a Scopus Indexed or Web of Science/International Citation indexed journal. This promotes a healthy research culture and will be a tremendous fillip for a fledgling researcher. Further, research guidelines are passed that every department has to conduct one national conference per year and an International conference once every two years. Every Professor, Associate professor and Assistant professor must submit proposals for Research projects and every sponsored project should lead to research publications.

### ***FINANCIAL SUPPORT/INCENTIVES***

As contingency support for research seed money is granted for completion of projects towards establishment of lab, procurement of hardware software and other equipment. Similarly base fund for organizing the conferences is provided. As a token of appreciation the faculty members are given incentives commensurate with the impact factor of the journal in which their papers are published.

### **MONITORING**

Dean R&D reviews the progress of research in various groups and the progression towards the target.

### **THE RESULT**

The benchmark envisaged for the 5 yr period of 2012-2017 is successfully achieved. The University clocked an average growth of 65% and over all 7.5 papers have been published (including journals and national & International Conferences) per faculty over a period of five years.

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>
Strategic Plan and deployment documents on the website	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### **6.2.2 Organizational structure of the University including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism**

#### **Response:**

KLEF has developed and implemented the organisational structure of the University and placed all the authorities and officers at specific levels. The governing body (BOM) and the administrative set up of the University design the explicit and implicit institutional rules and policies that outline the various work roles and responsibilities that of the various officers and functional/statutory bodies.

The appointment of officers by the University is as per the guidelines of UGC

- 1.Chancellor
- 2.Vice – Chancellor
- 3.Pro Vice – Chancellor
- 4.Registrar
- 5.Finance Officer
- 6.Controller of Examinations
- 7.Deans
- 8.Head of the Departments

The head of the University is the Vice Chancellor (VC) who chairs the Board of Management and all other recommending bodies such as Academic Council, Planning and Monitoring Board, Research Board and Finance Committee.

The University has appointed Deans and Directors to define, monitor and control the various administration of specific functions. The following are the Dean positions/designations identified for smooth functioning.

Dean (Academics), Dean (R&D), Dean (Planning & Development), Dean (Skill Development), Dean (Quality), Dean (Student Affairs), Dean (Faculty and staff). Some of the roles of the Deans are as follows:

- Dean (Academics) is supported by associate deans heading various areas such as curricular aspects, teaching and learning, OBE and evaluation, registration, certificates and projects.
- Dean (Faculty and Staff) has three main aspects of faculty and development, empowerment and welfare.
- Dean (Skill Development) in association with Government and other bodies implements and monitors skill enhancement of the University students, school dropout and unskilled workers in and around the University etc., The detailed roles and responsibilities of functionaries are provided in Annexure – I

In addition to the above seven principals are appointed for seven colleges of the University.

The BOM is the Principal organ of Management and Principal executive body. The other functioning bodies are Academic Council, Standing Committee, Planning and Monitoring Board, Finance Committee, Research and Development Board and BOS.

The functions of the statutory bodies are provided in Annexure –II.

The Service Rules, Procedures, Recruitment and policies are available in Annexure – III.

The Grievance Redressal mechanism followed by the University is provided in Annexure – III.

The entire administration of the University is thus decentralized.



File Description	Document
Any additional information	<a href="#">View Document</a>
Link to Organogram of the University webpage	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 6.2.3 Implementation of e-governance in areas of operation

- 1.Planning and Development
- 2.Administration
- 3.Finance and Accounts
- 4.Student Admission and Support
- 5.Examination

All 5 of the above

Any 4 of the above

Any 3 of the above

Any 2 of the above

**Response:** All 5 of the above

File Description	Document
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	<a href="#">View Document</a>
ERP Document	<a href="#">View Document</a>
Screen shots of user interfaces	<a href="#">View Document</a>

### 6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

**Response:**

All statutory bodies in KLEF are constituted and became operative as per the UGC norms. The agenda items received are deliberated and resolutions are recorded followed by necessary action. The responsibility of implementing these is assigned to the respective functionaries and the progress is monitored.

Statutory bodies and committee in KLEF:

1. Board of Management
2. The Academic Council
3. Planning and Monitoring Board
4. The finance Committee
5. Research Board
6. Board of Studies

There are 24 other committees functioning in the University.

Example of one activity successfully implemented based on the minutes of the meeting of various bodies is related to obtaining approval for introducing new M.Tech program in Signal Processing.

**DAC:** ECE department Academic Council met on 31st may 2013. It was proposed that a new M.Tech programme in “Signal Processing” should be introduced from the academic year 2013-14. The necessary courses and the syllabus to be incorporated were also identified.

**Resolution:** The proposal to introduce the new M.Tech programme in Signal Processing along with syllabus is to be forwarded to the Board of Studies of ECE for consideration and approval.

**BOS:** The Board of Studies of ECE has met on 7th June 2013. The proposal of DAC to introduce the new M.Tech programme in Signal Processing was discussed as agenda Item.

**Resolution:** ECE Board of Studies has approved the proposal forwarded by DAC to introduce M.Tech programme in Signal Processing from the academic year 2013-14. The identified syllabus is also approved. It is resolved that the proposal and the syllabus be submitted to the Academic Council for approval and versioning.

**Academic Council:** In the XII Academic Council meeting held on 30th October 2013 the recommendations of the ECE BOS to introduce M.Tech Signal Processing was discussed as agenda item13.

**Resolution:** The Academic Council approved the proposal to introduce a new M.Tech programme in Signal Processing from the Academic year 2013-14. It has been resolved that the proposal along in the approved syllabus sent by ECE BOS held on 7th June 2013 are to be recommended to the and sent to the BOM for further final approval.

**BOM:** The 15th Board of Management meeting held on 31st October has considered the recommendations of the Academic Council to introduce the M.Tech programme in Signal Processing from the academic year 2013-14.

**Resolution:** It has been resolved that the recommendation of the Academic Council (Annexure XII) is approved.

## 6.3 Faculty Empowerment Strategies

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

#### Response:

KLEF University recognises the contribution of the employees towards the development and progress of the organisation. The University offers/provides lucrative welfare schemes to all the employees to ensure and increase their work efficiency. The following welfare schemes are prevalent in the University.

#### 1) PROVIDENT FUND :

KLEF is continuing the Employee Provident Fund to the members of both teaching and non-teaching that was initiated since the inception.

#### 2) ESI FACILITY :

The self-financing social security and health insurance scheme, ESI facility is provided by the University from September 2016 to the employees of KLEF.

#### 3) GRATUITY :

The University provides gratuity(group gratuity) facility on the retirement benefit scheme to non-teaching staff.

#### 4) GROUP SAVING LINKED INSURANCE;

The group insurance scheme offered by KLEF meets a variety of needs of the employees.

#### 5) MEDICAL GROUP INSURANCE :

The medical and group insurance is one of the welfare measures taken up by KLEF for the benefit of faculty and staff members. It provides cashless medical treatment in case of emergency of illness in corporate hospitals.

#### 6) REIMBURSEMENT OF MEDICAL EXPENSES:

KLEF provides the teaching and non-teaching members with the facility to avail medical expenses reimbursement in case of accidents or diseases involving huge expenditure besides sanction of paid leave.

#### 7) PAID LEAVE :

Under this scheme, the University sanctions paid leave in case of marriage, maternity, bereavement in the employee's family, or health related issues etc.,

#### 8) FEE WAIVER :

KLEF gives utmost importance to education. To promote this the University provides education fee

waiver for self education as well as education of children of faculty and staff education in KLEF.

#### 9) FEE REIMBURSEMENT :

In addition to the education fee reimbursement for self education and that of education of children of faculty and staff, the University reimbursement of the fee for education at other institutes.

#### 10) TRANSPORTATION FEE CONCESSION :

To ensure comfortable travel of all the teaching and non-teaching staff, KLEF provides transportation fee concession.

#### 11) SUBSIDISED ACCOMODATION:

KLEF provides subsidised accommodation facility for faculty and non teaching staff in the University Hostels.

#### 12) LOAN FACILITY:

All the employees of the University are provided loan facility related to a)purchase of laptop b) personal loan facility c) Cash advancement in case of construction of house etc.,

Besides the above mentioned schemes there are other welfare schemes such as festival cash advances, travel and accommodation allowances for knowledge enhancement etc.

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

**Response:** 32.15

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

2016-17	2015-16	2014-15	2013-14	2012-13
434	270	298	95	139

#### File Description

#### Document

Details of teachers provided with financial support to attend conferences,workshops etc. during the last five years

[View Document](#)

### 6.3.3 Average number of professional development / administrative training programs organized by

**the University for teaching and non teaching staff during the last five years****Response:** 54.4

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
64	60	57	56	35

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	<a href="#">View Document</a>
Details of professional development / administrative training programs organized by the University for teaching and non teaching staff	<a href="#">View Document</a>
Reports of Academic Staff College or similar centers	<a href="#">View Document</a>

**6.3.4 Average percentage of teachers attending professional development programmes viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programme during the last five years****Response:** 92.55

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
890	776	618	602	536

File Description	Document
Details of teachers attending professional development programs during the last five years	<a href="#">View Document</a>
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers).	<a href="#">View Document</a>
IQAC report summary	<a href="#">View Document</a>

### 6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

#### Response:

Performance appraisal mechanism at KLEF has been standardized and designed strictly as per UGC norms to identify leadership abilities and training needs of both teaching and non teaching employees.

The appraisal systems currently in use:

#### **FACULTY APPRAISAL SYSTEM**

All teaching faculty follow self – assessment method. It has four components.

#### **CATEGORY 1 (150 Points)**

The parameters included are teacher as persona and teacher as performer viz classroom lectures, seminars, tutorials, course delivery, question paper setting and evaluation, use of innovative teaching methods, updation of materials, ICT etc. on the one hand, and student feedback and pass percentage on the other.

**CATEGORY II (100 Points)** Covers (a) Contribution to co curricular activities including NSS,NCC etc. (b) Professional contribution to academics, contribution to short term training courses, performing Invigilation duties, contribution to University administrative bodies such as Academic council, R&D council Planning & Development committee etc.

**CATEGORY III (250 Points)** The Research and allied contribution category is for a score of 250 points. These are based on the number of participations in conferences, publications in Scopus indexed journals, book publication, sponsored projects, consultancy, Research supervision, awards & honours, fellowship titles, post doctoral/ degrees etc.

**CATEGORY IV (50 Points)** This is HOD's assessment and assesses the attitudinal/ behavioural/ professional aspects of the faculty concerned.

Increments rewards are granted to faculty on the percentage of score against the total of 550 points.

#### **NON – TEACHING STAFF**

Self - appraisal of Non – Teaching staff comprises two components.

The first component is based on technical contribution of individuals such as subject knowledge, awareness, productivity, quality, innovation, willingness to learn, diligence etc.

The second component assesses the behavioural aspects like group behaviour, acceptability, punctuality etc.

Based on the composite score of the two components and recommendations of the review team, training programs for Non – Teaching staff are organized.

File Description	Document
Any additional information	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution conducts internal and external financial audits regularly

#### Response:

KLEF is conducting both internal and external audits on all the financial transactions that it conducts every year. Internal audits are conducted by a separate cell created within the finance department. The cell conducts audits once in every quarter.

M/S Ramana Murthy and Co., Vijayawada has been appointed as external auditors and has been rendering their services for the last five years. External audit is conducted once in 6 months.

Enumeration of the External and Internal audits conducted for the last five years with signatures of auditors / finance officers are presented in the form of PDF files as provided in given below "*Link for additional information*".

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

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

Response: 104.21

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

2016-17	2015-16	2014-15	2013-14	2012-13
97.26	0	1.966	3.464	1.522

<b>File Description</b>	<b>Document</b>
Details of Funds / Grants received from non-government bodies during the last five years	<a href="#">View Document</a>
Annual statements of accounts	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

#### **Response:**

KLEF designed a policy and strategy for mobilising resources and to ensure transparency in financial management. The financial transactions of the university are subjected to regular internal and external audit.

The financial sources of the University are

1. Tuition fee
2. Research Grants
3. Donations and Contributions from Individuals, Alumni, NGOs etc.
4. Fee from specialised technical courses.
5. Corporate Training.
6. Consultancy
7. Sponsored Research Programmes
8. Bank loans

However, financial resources of KLEF during the past few years have been largely from Tuition fee.

#### **Financial resource mobilisation policy**

Following strategies reflect the financial mobilisation policy of KLEF:

1. Reviewing existing financial resource base and identifying the feasibility of exploiting untapped resources.
2. Augmenting the potential of existing resources
3. Generating developmental grants/aid from public and private sources.
4. Expanding financial resource-base.
5. Implementing procedures for optimum utilisation of existing resources
6. Expanding the skill-set of in-house human resources.
7. Designing the mechanism of checks and balances through internal and external audit which result to eliminate the undesirable drains in the system.
8. Implementing and updating consultancy policy



### Strategic initiatives for broad basing resource-mobilisation channels

1. **Expanding consultancy base:** The University consultancy activity has been extended from Civil Engineering department to others.
2. **Corporate training:** KLEF has now prioritised corporate training as resource base for institutional funding.
3. **Leveraging industry- institute synergy:** A centre for industrial consultancy and sponsored research (IC &SR) is created to leverage industry-institute synergy. The institute through this centre interacts with industries, research organisations and government agencies for taking up consultancy and sponsored research projects.
4. **Building Relationships:** Building relationships through social networking. Relationships with professional and private institutions are entrepreneurial in nature that helps in generating ideas that attract resources while relationship with public institutions helps in enhancing processes and consultations.
5. **Alumni relations:** The Alumni of the University contribute to the developmental activities of the University in many forms like innovation and start-ups.
6. **Government Grants:** KLEF has been focusing only on government research, consultancy and training and development activities. Presently the focus is on UGC development grants in the 17th and subsequent plans, AQIS funding etc.,

The outcomes of the above strategic initiatives of the University are likely to result in marked improvement in mobilization of funds.

### Optimum utilisation of financial resources

KLEF is known for optimum utilisation of its financial resources with inbuilt mechanism of checks and balances which monitor the entire financial management system in the University. KLEF has developed a specific procedure which reflects in getting the financial indents from departments/schools/colleges of the University leading to the realisation of vision objectives by implementing the following measures

1. Preparing comprehensive budget providing adequate resources for academic, research and administration divisions.
2. Developing specific norms for budget allocation.
3. Monitoring financial management brings internal audit as evidence for the institutional financial health.
4. Institution maintaining corpus fund
5. Conducting internal and external audits.

The above processes would help the University achieve optimum utilisation of resources.

## 6.5 Internal Quality Assurance System

**6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes**

**Response:**

In KLEF quality enhancement is a continuous process. The university IQAC works out intervention and pre-emptive strategies to improve quality. The Primary objective of the cell is to develop systems for conscious, consistent and catalytic action to improve academics, research and administrative performance. The University IQAC follows a calendar of events and

- Identifies quality parameter for various activities and maintains the proceedings. The cell further evolves mechanisms and procedures to ensure effective and efficient performance of academics, research, administration and financial tassels of the university.
- Integrates modern methods of teaching and learning
- Monitors the credibility of evaluation procedure ensures adequacy, maintenance of various services.
- Supports conduct of workshops, awareness programmes, special lectures on quality innovation, curriculum, teaching, learning & evaluation, CBCS, blooms taxonomy, research oriented seminars, etc.
- Coordinates with all stakeholders and takes into congruence their opinions and advices for quality sustenance and improvement.
- Analyses the feedbacks received from all stakeholders and notify the departments/offices about the outcomes for correction and modification.
- Monitors documentation of various programs and activities leading to quality improvement.
- Disseminates information on various quality improvements.
- Encourages and appreciates all faculty and staff for their efforts towards quality sustenance and improvement in teaching-learning, research and administration.

The regular activities of KLEF IQAC for institutionalizing quality assurance strategies are

- Preparing yearly action plan with quality bench-marks-action plan meeting.
- Developing standardized system and formats to monitor all academic and administrative activities of each department and functionary.
- Monitoring and follow-up of all activities carried out by each department.
- Framing guidelines for faculty members as per their academic, administrative and research responsibilities
- Conducting internal academic, administrative audit of all documents once a month throughout the semester and planning external/ intra-departmental audit at the end of the academic year.
- Preparing IQAC quarterly audit reports and AQAR to ensure quality culture in all areas.
- Formatting all documents pertaining to KLEF University.
- Organising faculty orientation and faculty development programs in coordination with KLEF Academic Staff College (ASC).

The University IQAC audits all academic, administrative and research activities regularly. The cell prepares necessary guidelines (as per the NAAC/UGC norms) to ensure and enhance quality sustenance and improvement. Two such examples that were implemented successfully as a result of the intervention of IQAC are presented.

The concept of Course-Coordination for smooth and successful delivery of course in multi-sections and norms / guidelines to encourage and enhance research culture in all the departments are two examples of

significant contributions made by KLEF IQAC.

*The details of the two examples are uploaded under any additional information due to the constraint of the word limit.*

File Description	Document
Any additional information	<a href="#">View Document</a>

### **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**

#### **Response:**

As per the academic calendar of each semester, a definite session plan is incorporated in the course handouts. This plan indicates whether the course delivery will be made using ICT tools, active learning methods or the traditional chalk-and-talk method. In the IQAC audit usage of ICT tools and target achievements such as course outcomes are monitored. IQAC also measures the frequency of use of ICT tools by faculty to set new benchmarks for standard utilization. It also analyses various results to decide which practice should be mandatory and which allows for optional use.

IQAC in its reviews came across the following two instances where they actively interacted with the academic functionaries in implementing teaching, learning reforms.

#### **EXAMPLE1**

##### **TEACHING LEARNING PROCESS**

Based on the percentage of marks obtained by students the result was analysed to judge their performance in attaining each course outcome. All deviation were closely studied by the IQAC which came up with an action plan to close short falls and improve the efficiency of teaching-learning process.

As part of the follow up the IQAC has made two recommendations to strengthen the teaching, learning process. Keeping in view the scientifically proven importance of graphics and visuals in communication, the IQAC recommended greater use of ICT tools in course delivery. As a result there is a 70% improvement in performance in memory based tests and of 30% saving in required learning time. The time thus gained is utilized in intensive study and practice of conceptual topics. This was a huge departure from and advantage over the conventional text book cum chalk-and-talk method. Further, the IQAC suggested that the discussion and case study methods should be preferred to the stand-alone mode. This interactive communication helps teacher actively identify the shortcomings and also initiate on-the-spot remedial action. Such approach is far superior to the earlier prescriptive methods.

#### **EXAMPLE 2**

##### **QUESTION PAPER REVIEW**

During its academic audit, IQAC cell found that there is no uniformity in setting question paper though they were covering the whole syllabus in a slightly lopsided manner. This has been found in respect of both internal assessment tests and end semester examinations. In most cases, questions are set from particular chapters but they do not address the course outcome uniformly. In order to satisfy this condition, IQAC has suggested a uniform approach in framing question paper so that Cos, BTLs, POs etc., are addressed with greater accuracy. Faculty have been trained at workshops conducted by experts in Bloom's Taxonomy and Washington Accord which have given them first hand knowledge of the method and of the intricacies on which they should focus special attention. This initiative has substantially improved the testing and evaluation mechanism on the campus. Every semester examination question papers are audited by internal and external experts to ensure attainment of such parameters as course outcomes at pre-decided cognitive levels fixed as per Bloom's Taxonomy.

### 6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

**Response:** 4.6

#### 6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
5	4	6	4	4

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	<a href="#">View Document</a>
IQAC link	<a href="#">View Document</a>

### 6.5.4 Quality assurance initiatives of the institution include

1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
2. Academic Administrative Audit (AAA) and initiation of follow up action
3. Participation in NIRF
4. ISO Certification
5. NBA or any other quality audit

Any 4 of the above

Any 3 of the above

Any 2 of the above

**Any 1 of the above****Response:** Any 4 of the above

File Description	Document
e-copies of the accreditations and certifications	<a href="#">View Document</a>
Details of Quality assurance initiatives of the institution	<a href="#">View Document</a>
Annual reports of University	<a href="#">View Document</a>

**6.5.5 Incremental improvements made during the preceding five years (in case of first cycle) Post accreditation quality initiatives (second and subsequent cycles)****Response:**

National Assessment and Accreditation council awarded grade 'A' to KLEF University in 2012. The peer team in their Assessment report made 10 recommendations. Basing on which the IQAC of KLEF has developed a quality policy to initiate, monitor, evaluate and recommend measures to improve quality of teaching, learning, evaluation and research methods.

**STRATEGIC PLAN**

The aims and objectives are matched to the plan segments to translate vision and mission into attainable goals with 10 year projections. Academics, Research, Outreach, Global competency, and Ethics are included in the perspective plan, the guiding principle for planning micro-level activities.

**RESIDENTIAL ACCOMMODATION FOR THE FACULTY**

As per the recommendations of the NAAC Committee, Management has built a residential campus with 2 blocks to house 150 faculty, 2 blocks for Girls' and Boys' Hostels.

**WELFARE MEASURES**

KLEF has taken up a number of faculty welfare measures like

- Medical & Group Insurance for faculty
- Gratuity for Non-teaching staff
- Provident Fund
- Fee-Waiver for faculty self-education and education of children
- Reimbursement - for faculty children studying elsewhere
- Loan facility for purchase of Laptop
- Personal loans
- Special welfare package of 15-day average pay per year for faculty
- Contingency research grants
- Medical expenses in case of accidents diseases incurring huge expenditure

- Sanction of 15-day paid leave in case of marriage
- Sanction of paid leave in case of bereavement

## **IMPROVING RESEARCH OUT PUT**

The following steps are initiated to augment research on the campus.

R&D guidelines for quality research publications in Scopus indexed/web-of-science, International citation indexed journals.

Cadre-wise annual publication benchmarks:

Professors - 3 papers

Associate professors - 2 papers

Assistant professors - 1 paper

Following the above initiative research publications (Scopus-indexed) made a quantum jump to 4000 with h-index of 30. Six departments in the university have got DST-FIST and ICSSR funding.

The following steps have been the research activity on the campus.

The research scholar-intake is enhanced. There are 1200 scholars in 13 programs pursuing their doctoral programs.

The other initiatives are:

- Awards to best researchers
- Incentives for publication
- Interdisciplinary Research groups
- Establishment of Research centres with high-end infrastructure.

## **INFRASTRUCTURE**

State of the art academic infrastructure established during 2012-2017

- Additional lab space to perform 110 different lab activities
- Membership of “All India Virtual Classroom” initiated by MHRD
- Procurement of super computer
- ICT-enabled classrooms

## **LIBRARY**

KLEF has a state-of-the-art central library , which is fully automated with 2 lakh books of hard copies .The library also has a good number of e -books and e-Journals which are accessible through online facility. The central library has an institutional repository with D-space and digital library software. In addition to these there are 10 Department libraries as support facilities.

## **PLACEMENTS**

The University has interaction with Industry and various reputed institutions through MOUs and collaborations. Practice school, internships, sponsored projects and consultancy etc. have changed the research ambience of KLEF which has 30 national and 33 international collaborations, 50 functional MOUs and around 786 Industrial linkages.

The other areas in which KLEF has made rapid progress are Entrepreneurial activities and Development of Research centres.

NAAC

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

**Response:** 140

##### 7.1.1.1 Number of gender equity promotion programs organized by the institution year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
30	33	23	28	26

#### File Description

#### Document

Report of the event

[View Document](#)

List of gender equity promotion programs organized by the institution

[View Document](#)

#### 7.1.2 Institution shows gender sensitivity in providing facilities such as

a) Safety and Security

b) Counselling

c) Common Room

**Response:**

The University follows 40% reservation for girls as per statutory norms and has set up a well-structured system in place to look after the safety and security of students. In the university campus security is provided by a 75-member OPDSS and a special team of 14 vigilance officers. It is mandatory that students and faculty should wear the ID Cards. Two woman security guards are stationed at the girls' hostel. The university woman's forum conducts frequent health awareness programmes.

Security officers' phone numbers are displayed in various conspicuous places in the campus so that any untoward incident can be reported promptly to OPDSS or vigilance officers.

**SOCIAL SECURITY:** The university woman's forum conducts frequent health awareness programmes, women empowerment and awareness of progress made by women at National and International levels in different fields. They organized a training programme for girl students on threat awareness, security and self-defence. There is separate transport for women and girl students. On special occasions like the university fest, cultural / academic programmes, placement drives etc. special transport for girl students is provided and when they are detained beyond 8pm girl students are escorted to the door if parents do not



turn up at pickup points.

**COUNSELLING:** KLEF has arranged for special counselling for girl students in three major areas:

1. Counselling related to academics
2. Counselling related to career
3. Counselling related to behaviour and attitude

One faculty member is allotted as a counsellor for 15 students. Faculty calls the parent and discusses the academic progress/status of the ward. Students should meet the counsellor once a week. In case of slow learners and differently-abled students close monitoring is made by the counsellor in consultation with the respective subject faculty.

To provide proper guidance related to career and placements – one faculty member is allotted for every 15 students in the final year of the programme. To improve the performance of the students special training sessions in group discussions and interview skills are conducted by the CSS Department. Special training in technical subjects and Java is provided for the students to improve the chances of their employability and job readiness.

Identification of depression and abnormal behaviour patterns is made frequently. Such students are directed to the counselling cells for special counselling by a psychiatrist.

**COMMON ROOMS:** There are 25 common rooms – 12 for boys and 13 for girls – provided on the campus, with a total carpet area of 1813 sq.mts and a plinth area of 2028 sq.mts. The boys common rooms are located in Electronic Block (Rest room – visitors) –(1), Indoor sports complex(2) and Research block(5). The Girls common rooms are in Electronics block(1) FED block(1) Mechanical block(1) CSE block(5) Architecture block(1) Indoor sports complex(1) and Research block(3).

The common rooms are provided with 400 chairs, 30 tables, and are adequately furnished with electric and sanitary fittings. A female security guard is arranged to look after the Girls' room.

### **7.1.3 Percentage of annual power requirement of the Institution met by the renewable energy sources**

**Response:** 33.06

#### **7.1.3.1 Annual power requirement met by renewable energy sources (in KWH)**

**Response:** 819852

File Description	Document
Details of power requirement of the university met by renewable energy sources	<a href="#">View Document</a>

#### 7.1.4 Percentage of annual lighting power requirements met through LED bulbs

**Response:** 48.46

##### 7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 441238

File Description	Document
Details of lighting power requirements met through LED bulbs	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 7.1.5 Waste Management steps including:

- Solid waste management
- Liquid waste management
- E-waste management

**Response:**

Steps initiated towards Waste Management

- Solid waste management
- Liquid waste management
- E-waste management

The following steps have been initiated towards waste management in KLEF University in 2016. The 3R principle is followed in diverting waste from the landfills. It is estimated that approximately 1 ton of waste is generated in the campus.

#### **SOLID WASTE MANAGEMENT & LIQUID WASTE MANAGEMENT**

The solid waste management project aims at diverting about 80% of the waste from the landfills. Organic and green waste, recyclable waste and sanitary waste are collected in different colour bins.

- Segregated food waste, vegetable peels etc is collected from the canteens and food joints on the

campus and is composted in SITU. Similarly, the garden waste dry leaves are also composted.

- Recyclable waste like pet bottles, cartons and stationery are collected

and dumped in a shed which is periodically sold to vendors for recycling.

The sanitary waste collected from washrooms and hostels is given to a bio medical wash agency with alternate day pickup service and incineration of the waste.

The KLEF community is actively involved in the CLEAN-and-GREEN campaign of national fame, a subject in which it had already taken keen interest from the year of inception in 1982. The trees that line several avenues on the campus are 20-30 years old and are maintained with great care.

Further, KLEFU has introduced effective solid waste systems in the campus. The waste is segregated at source into recyclable waste and organic waste. There are dual set bins placed all over the campus.

The high value recyclable waste is sent to recyclers and organic waste is collected.

The sanitary waste and bio medical waste is given to a certified agency for incineration. Further, there is a sewage treatment plant on the campus which treats grey and black water.

#### **E-Waste Management :**

All electrical waste such as tubelights, bulbs, old switches and wires are stored separately in the shed. The house keeping team has been trained in handling all categories of waste. An effective system of segregation, collection, storage and eco-friendly disposal of waste is put in place.

KLEF has also taken the following steps to reduce generation of waste. Biodegraded plates are used instead of paper and plastic plates, steel spoons replace the plastic spoons in the canteen, steel tumblers in place of paper cups.

Awareness programmes about waste management are conducted in the campus for students, faculty and staff to promote environment friendly practices as part of celebration of the year in which the KLEF campus won the UGC -Sponsored “Best Swatch Campus” award.

### **7.1.6 Rain water harvesting structures and utilization in the campus**

#### **Response:**

Water the most precious and essential natural resource is endangered in two ways – 1. By polluting and poisoning it by industrial wastes and emission 2. Drought and ground water depletion.

Rain water harvesting is one of the scientific methods that can be followed by institutions as well as individuals as a small through values towards water preservation.

KLEF has an area of 44 acres and 15 blocks, gardens, plantations, play grounds, lawns etc., and being situated in a more than average rainfall region it is imperative that proper rain harvesting system is installed on the campus. The average annual rainfall on the campus is 830 mm. The rain water falling on an area of 1000 sq.mt is 7.7 lakh litres. The rain water collected from catchment areas of buildings, roads and pavements is around 6.99 lakh and 4.63 lakh litres per year respectively.

Three types of rain harvesting system are installed on the campus. A comprehensive plan for rain water harvesting system is being followed and implemented within the campus. They are, 1) Ferro-cement tanks 2) Soak pits and 3) Pavar blocks

Rain water harvesting Ferro-cement tanks are constructed to collect the rain water from buildings of KLU and same is being utilized in the rest rooms and gardens. A total of seven numbers of 2 lakhs litre capacity each (rainwater harvesting) facility is provided in all the buildings and also proposed for several buildings under construction. Soak pits are provided at all buildings of the institution and hostels. This ensures that the water levels in the open wells and bore wells with in KLU are maintained at usable levels. Pavar blocks with water permeating property are being used for car parking to recharge the ground water. Harvesting pits (3' wide and 10' deep) are provided near all road intersections.

All the other rain water is disposed-off through open storm water drain collected in artificial lakes created within the campus. By implementing the above watershed technologies, the ground water table as well as the water level in the existing well has increased. Thus it has satisfactorily fulfilled the water needs and reduced the dependency on present water supply scheme throughout the year.

### **7.1.7 Green Practices**

- **Students, staff using**
  - a) **Bicycles**
  - b) **Public Transport**

**c) Pedestrian friendly roads**

- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

**Response:**

Ensnconced in the coastal greenbelt of AP, KLEF is surrounded by an expanse of green, providing an idyllic ambience for scholastic pursuits.

**UPKEEP OF GREENARY**

Over the last five years the following steps were launched by the institution towards creating environmental consciousness on campus.

- The University grants substantial funds for the maintenance of a campus rich with greenery and some rare and well-groomed trees. Lawns, garden and avenue trees are maintained on a daily schedule. Despite the ongoing construction work, maintenance staff are deployed to clean construction residues promptly.
- Trees of 25'-40' line the main avenues and trees of 10'-15' and shrubs are planted on both sides of roads connecting various blocks.
- Use of plastic is strictly prohibited on the campus.
- A miniature Bio-diversity park is maintained with a variety of animals like rabbits, ducks, parrots, tortoise, monkey etc in simulated habitat.
- Biogas plant is installed in the University Campus to generate biogas from hostel wastes.

The trees lining the avenues are over 35 years old reaching a height of 60'. Rare, Well-groomed lawns and gardens are reared professionally. The upkeep of greenery shows that the love of green is as inherent to the soil as to the minds.

Important green practices are using alternate energy, rain water harvesting, waste management and carbon neutrality.

Other initiatives include passive solar building- design, energy efficacy, paperless office, say-no-to-plastic and aquifer recharging.

**PEDESTRIAN-FRIENDLY AVENUES**

Around 6000 students and faculty commute by 66 college buses. All vehicles are confined to open space parking zones, leaving avenues and buildings pedestrian – friendly and pollution –free. The trees from a virtual canopy of bright green verdure cordoning off the academic blocks in an enclave of tranquillity.

**AWARENESS CAMPAIGNS** like Green Brigade, you can make a difference, SAY-NO-TO-PLASTIC were organized.

### **Environmental Awareness**

Various environmental awareness camps are organised regularly by student groups headed by the faculty. The following awareness camps are organized regularly.

- Green Brigade, you can make a difference.
- Say ‘No’ to plastic.
- Switch off when not in use.
- Clean and Green
- Carbon foot print.

The campus won three awards:

1. **Energy conservation Award 2016** Ministry of power Govt of India.
2. **SWATCH INSTITUTE (Technical/University)** All India 2 rank MHRD 2017
3. **Most clean campus in south central Region 2017** (AICTE)

### **7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years**

**Response:** 0.81

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
116.23	142.57	63.73	31.29	41.97

File Description	Document
Any additional information	<a href="#">View Document</a>
Details of expenditure on green initiatives and waste management during the last five years	<a href="#">View Document</a>
Green audit report	<a href="#">View Document</a>

### 7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

1. Physical facilities
2. Provision for lift
3. Ramp / Rails
4. Braille Software/facilities
5. Rest Rooms
6. Scribes for examination
7. Special skill development for differently abled students
8. Any other similar facility (Specify)

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

**Response:** A. 7 and more of the above

File Description	Document
Resources available in the institution for Divyangjan	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
link to photos and videos of facilities for Divyangjan	<a href="#">View Document</a>

### 7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

**Response: 18**

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
6	4	3	3	2

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)****Response: 20**

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
7	5	4	3	1

File Description	Document
Details of initiatives taken to engage with local community during the last five years	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

**7.1.12****Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff****Response: Yes**



File Description	Document
Any additional information	<a href="#">View Document</a>
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	<a href="#">View Document</a>

### 7.1.13 Display of core values in the institution and on its website

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide URL of website that displays core values	<a href="#">View Document</a>

### 7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

**Response:** Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	<a href="#">View Document</a>

### 7.1.15 The institution offers a course on Human Values and professional ethics

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide link to Courses on Human Values and professional ethics on Institutional website	<a href="#">View Document</a>

### 7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide URL of supporting documents to prove institution functions as per professional code	<a href="#">View Document</a>

**7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years**

**Response:** 50

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
13	11	11	8	7

File Description	Document
List of activities conducted for promotion of universal values	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities**

**Response:**

KLEF upholds the tradition of celebrating all National festivals and birth/death anniversaries of the noted Indian personalities.

The University observes all national festivals such as **Independence Day** and **Republic Day**. It is customary for all the Faculty, Staff and students of the institution to attend these celebrations without fail. After hoisting the national flag, students, members of teaching and non-teaching staff pay homage to the freedom fighters and martyrs. During these occasions eminent speakers are invited. They recall and hail the services of the freedom fighters and inspire young minds about altruistic sacrifices made by our ancestors during the Independence movement. The VC along with the other functionaries attends these celebrations and makes it a grand success. The invited speakers are felicitated. These celebrations are followed by various cultural programs and social service activities such as Swatch Bharat, Blood Donations, NSS, NCC etc., where students participate in good number.

KLEF gives priority to apprising about social responsibility of students as engineers and as global citizens. The University celebrates the birth anniversaries of great personalities of India to initiate students into nation's memorabilia.

The Organization celebrates **Engineers' Day** on September 15th commemorating the birth anniversary of Mokshagudam Visveswaraya, **Gandhi Jayanthi** on October 2nd by paying tribute to the father of the Nation, **Teachers' Day** on September 5th to commemorate the birth day of Dr.Sarvepalli Radha Krishnan the best role model of a teacher. Department wise celebrations are organised by student groups to communicate the birth centenary celebration of Dr. Sarvepalli. Eminent scholars or academicians are invited and felicitated. They share their experiences and invoke responsibility, commitment of youth towards the development of the nation. Students felicitate the faculty of various departments. In addition to this the University also celebrates **A.P. Engineers' Day** on July 15th commemorating the birth anniversary of Dr.K.L. Rao and 31st October the birthday of Sardar Vallabhai Patel is celebrated as **National Unity day**. It is the determination of this *Iron Man of India* and his undaunting efforts that made Indian Union an unbreachable citadel. To communicate Sardar Patel's Birth Anniversary the *Run for Unity* event is organised and students from all programmes participate in great number and make it a grand success. Recalling the yeoman services and contributions of these great nation builders is followed by cultural and technical competitions to promote social awareness and civic responsibilities among students.

Every year the students of the university observe **Kargil Vijay Diwas** in the month of February to salute the brave-hearts who sacrificed their lives to save the nation from the claws of invasion.

On all these occasions various competitions such as elocutions, debates, discussions etc., are conducted and students participate in great number. All the hobby clubs of the student organisation of KLEF showcase their talents and the best performers are rewarded.

### **7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions**

#### **Response:**

KLEF maintains transparency in financial, academic, administrative functions. The University website has complete information related to academic, financial and administrative policies, functions of statutory bodies and the BOM.

#### **Finance**

Details of fee structure of all the programmes offered by KLEF are on the website. Fee-waivers, scholarships etc, are hosted on the University website.

KLEF supports paperless office and cashless transactions. Payments of tuition fee, examination fee, transportation fee etc are through online. Salary and other remunerations to employees are disbursed online.

Departments prepare annual budgets seeking allocation of funds for conduct of workshops, guest lectures every semester, National seminars or conferences once a year and International conference once in two

years.

The allocation of funds is as per policy norms. The final approval is hosted on University website.

Financial support is available to all faculty for attending national/international conference as per KLEF norms. Incentives and awards given to faculty are also as per University norms.

Purchases and disposals follow standard procedure and a record of the same is maintained. Regular internal and external audits ensure that there are no financial discrepancies.

### **Academics**

All information like list of courses, related to each of the programmes, the course offered in odd/even semester, academic calendar, course handouts with syllabus, evaluation pattern, learning material, Internal assessment schedules, lab manuals, assignment schedules and deadlines, tutorial problems, term paper and project tasks, internal marks, external examination schedules, end-semester results, etc can be accessed by all stake-holders through ERP/LMS. The evaluation key is displayed on the notice boards immediately after every internal assessment. Evaluation keys of all external examinations are made available in the examination branch. Answer scripts of all Internal exams are verified by students after evaluation. Students can cross-check with the evaluation key displayed and can request for verification.

### **Administration**

The University has a standardized practice of participative management. Different Committees, Boards, Councils, Forums and Cells are constituted viz., Board of Management, Academic Council, Standing Committee, Board of studies, Research Board, etc.

The organizational structure of the University including governing body, administrative units, functions of various bodies, functionaries service rules, procedures, recruitment, promotion policies as well as grievance redressal mechanism the role of office-bearers and functionaries are framed as per UGC norms.

Students are nominated to departments and University level committees. The Organogram hosted on the University website displays the KLEF organizational hierarchy.

### **Auxiliary**

The admission process of students into all programs is as per University policy. The fee concession given provided by the University are merit-based and is hosted on website.

Well-framed policy is established to promote Consultancy among all faculty. The same is hosted on KLEF website.

The welfare schemes for faculty and staff are incorporated in the policy document accessible to all employees. Fee waiver to the children of faculty is based on the number of years of experience of the

faculty and this is made known to all. Similarly the incentives and awards given to faculty are as per the policy.

## 7.2 Best Practices

### 7.2.1 Describe at least two institutional best practices (as per NAAC Format)

#### Response:

**The write up in the specified format is uploaded under any additional information.**

#### **COURSE COORDINATORSHIP**

The practice aims at addressing the shortcomings of effective delivery of course to multi-sections. To administer all these responsibilities each course has to be allotted a course coordinator.

A course coordinator is empowered with the administration of the course along with the responsibility of academic designing. The course coordinator is the single point contact to monitor the design, delivery, testing and evaluation of the course in multi-sections. Thus he/she is responsible for the methods and materials to be used in a course. The course coordinator prepares the course handout, lesson plan, PPTs, list of text and reference books and the evaluation pattern for the course.

Prerequisites for a course coordinator are that he should be the senior most member with a doctoral degree and adequate domain knowledge.

Despite these efforts there was lack of uniformity in effective course delivery. To overcome this the concept of SRP (Semester Ready Programme) was introduced. For the first time. All the faculty assigned as instructors of a course have regular meetings to discuss common teaching-learning dynamics and classroom mechanics, sample demos of classroom delivery by instructors are reviewed by experts.

The instructor of course coordinatorship and SRP are unique to KLEF. This mechanism ensured the smooth and uniform delivery of single course in the multi-section.

#### **COMMUNITY ENGAGEMENT:**

KLEF intends to cater to the growing needs of the rural community. The guiding principle of KLEF is to ensure consonance and connect with a predominantly agrarian neighbourhood. The faculty and students successfully implemented over 300 extension programmes during the last five years.

The programmes are Health and hygiene, Youth training, Environment (Clean and Green) and Distribution/Donation of Equipment and commodities. Blood donation camps and awareness rallies against AIDS and drug abuse, Eye camps, Dental camps, Diabetes, Health Care, etc., were organized in the target villages.

Under the clean and green initiative popularized by the Central Government a series of plantation drives *Vruksha Pran, Vanam Manam and climate change* were taken up in the rural neighbourhood.

A series of training programmes in collaboration with Government organizations like Sarva Siksha Abhayan, MEPMA, Dwakra, Swarna Bharat Trust etc., were conducted. The prestigious 2-day Kaizala Aap was held at University campus for AP MLAs.

Further, KLEF conducted technology-related programmes on the use of IOT devices like mobile and laptop. Research outputs of students like a drone were introduced to sprinkle pesticides in the fields of nearby villages.

A total of 4.16 lakh man-hours were spent in various service activities.

The programs received several awards and certificates of excellence from the State Government and other bodies like the 4 Public Service Excellence awards, the Visishta Seva Puraskar proffered by the Government of AP for the Awareness program on Swachata, Gender sensitization, Health and cleanliness and Digital literacy.

The Government of Andhra Pradesh declared KLEF as a NODAL TECHNOLOGY CENTER for the Smart Village Programs of Andhra Pradesh 2016-17.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 7.3 Institutional Distinctiveness

#### 7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

##### Response:

##### Research Culture at KLEF

The culture of research provides a supportive context, in which research is universally expected, discussed, produced and valued. The university is committed to transferring empirical knowledge to applicable reliable practices, replacing individual brilliance with collective, corroborative, societal utility. “With perceptive practice hobbies transform and canonize themselves in to a culture”. The university is a conduit for higher education, a launch pad for social enlightenment, a gym for self-discipline and a virtual progenitor of all research.

A fledgling university, KLEF had to review and redeploy its strengths as well as replenish itself with a number of supporting practices which have a vital role in this ambitious endeavour.

The university identified the necessary infrastructural and intellectual resources for Academic Research, Sponsored Research, Consultancy and Extension.

## **RESEARCH CENTRES**

Setting pace for research KLEF has established seven research centres:

- Centre for RF& Microwave
- Centre for Robotics & Mechatronics
- Centre for Advanced Energy Studies
- Centre for atmospheric Studies
- ESP labs
- Wipro Mission 10 X Learning centres
- MEMS – Micro Electro Magnetic Systems

The multi-faceted intervention by the R&D has helped in formalizing the research curriculum.

## **APPOINTMENT OF FULLTIME STAFF**

All the research centres have experienced faculty who introduce concepts, new areas of research, framing of research questions, and provide seed money for deserving projects. Each centre, headed by a Professor emeritus, is allotted 10 to 15 young faculty as mentees, who work in diverse specialized research areas facilitating continuous transfer of skills and expertise, enhancing the overall research capability.

R&D provides support, directions and incentives so that publications take a quantum step towards quality improvement. Awards and incentives are announced for publications in quality journals. A series of workshops were organised on intellectual property rights. With the objective of making research a thrust area the concept of mini-projects has been introduced early in the curriculum. Students can augment project reports with publication in a reputed international journal.

Substantial progress is noticed in research publication (4830 papers) with a per teacher average around 5. The number of books, chapters in edited volumes of books published (59) and papers in National and International conference proceedings for 5 years is 4556 papers. The Bibliometrics of publications for this period based on the citation index in Scopus for 963 papers is 3379 citations. The H index of the quality publications of the University stands at 30.

## **SPONSORED RESEARCH**

Faculty executes funded projects and Rs. 2.29 crores have been sanctioned by various funding agencies like UGC, SAP, FIST which has been used to procure high-end equipment for research centres. Rs. 29.96 crores have been sanctioned by various government agencies towards individual Research projects.

## **INCENTIVES**

KLEF has announced 7 lakh worth incentives to faculty receiving State/National/ International awards.

The processes that have been put in place have been of immense value and augur well for the R&D wing. The group dynamics that have been introduced in forming groups adds a genuine professional dimension

which eliminates intellectual segmentation and sedimentation.

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## 5. CONCLUSION

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### Additional Information :

KLEF has the following Hall Marks:

- Flexible Academic System.
- Full Semester Practice School.
- Outcome based teaching with Project based Lab.
- Certificate courses in emerging technologies.
- Open electives in Fine Arts like Photography, Music, Film making and movie making etc.
- Research Oriented Problem Solving Approach in Teaching.
- Research Groups to encourage students in R&D.
- Syllabus implementation and Revision as per the industry needs.
- Active collaboration and interaction with International Universities and Industries.
- A strong Industry Relations & Placement Department (IRP)
- Consultancy services to industries and institutions.
- Super Computer – alignment.
- ICT (Information Communication Technologies) enabled class rooms.
- Upto 3.155 GBPS Hi-speed Wireless ‘n’ internet connectivity round the clock on Campus and in Hostels.
- Facilities like Post Office, Bank with ATM on Campus.
- Uninterrupted power supply..
- Ambiance for incubating the innovation ideas through incubation center.
- A mentor is allotted for every 15 students to counsel them in their academic as well as person problems.
- Technology forums and hobby clubs for students.
- Excellent sports facilities with International standards and coaches for all major games & sports.
- “Cybex International” Exercise equipment in Gyms.
- Member of prestigious “All India Virtual Class Room” initiated by MHRD.
- Advisory Board in every department with top academicians from IITs and eminent personalities from industries to update the curriculum with latest trends in the market.
- Availability of infrastructure and expertise for development of mobile applications.
- Centers of Excellence in association with Microsoft, IBM, Oracle, CISCO, Adobe, SENSAR, Altair, NI and Nuclear Energy Centre on Campus.

### Concluding Remarks :

The 2012-2017 cycle is a period of consolidation of academics and initiation into new forays like Research and Development, Social Engagement, Environment and Sustainability, Human Values, Gender Equity, and Professional Ethics.

The prominent gains of the period are expansion of a State-of-the-art library and specialized research centres.

A major long-ranging academic gain is the introduction of the concepts of Course Coordinator and Outcome based Education which facilitate hassel-free implementation of a course with a fair degree of credibility and transparency.

The implementation of a well-structured “Course handout-Lesson plan-Evaluation rubrics-result analysis” model for all the courses offered by the university has set up the platform for feed-back-based corrections and innovation.

In the R&D – there has been quantum improvement in publications with awareness about Scopus-indexed publications, Intellectual property rights, and publication norms for Research articles, Monographs, Book-reviews, and Thesis.

KLEF has taken a few strides towards involving students in productive Social Engagement, meeting real time societal needs.

## FUTURE OUTLOOK

Following new trends, KLEF plans to start the flipped-classrooms and multilayer learning methodology. In the next cycle, there should be substantial shift towards core domain competencies as there is going to be a global downtrend in software jobs. The research centres will be upgraded as Centres of Excellence with increased focus on Start-ups, Funded projects and Patents.

The recently published highly interesting findings of world’s eminent experts in Academic/Life/Soft skills bring us to the threshold of major innovations in content development, communication and practice.