

*Guidelines for the Creation of the*  
**Internal Quality Assurance Cell (IQAC)**  
**and Submission of Annual Quality Assurance**  
**Report (AQAR) in Accredited Institutions**  
(Revised in October 2013)



**राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद्**

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

*An Autonomous Institution of the University Grants Commission*

P. O. Box. No. 1075, Opp: NLSIU, Nagarbhavi, Bangalore - 560 072 India

## The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)

### Part – A

#### **1. Details of the Institution**

1.1 Name of the Institution	Kalasalingam Academy of Research and Education
1.2 Address Line 1	Anand Nagar
Address Line 2	Krishnankoil
City/Town	Srivilliputtur
State	Tamilnadu
Pin Code	626126
Institution e-mail address	<a href="mailto:info@kalasalingam.ac.in">info@kalasalingam.ac.in</a>
Contact Nos.	04563-289042
Name of the Head of the Institution:	Dr.S.Saravanasankar
Tel. No. with STD Code:	04563-289042
Mobile:	9965917109

Name of the IQAC Co-ordinator:

Dr.C.Sivapragasam

Mobile:

9894028635

IQAC e-mail address:

iqac@klu.ac.in

1.3 NAAC Track ID (For ex. MHCOGN 18879)

TNUNGN10150

1.4 NAAC Executive Committee No. & Date:

(For Example EC/32/A&A/143 dated 3-5-2004.

This EC no. is available in the right corner-bottom of your institution's Accreditation Certificate)

EC/71/A&A/7.2 dated 16-11-2015

1.5 Website address:

www.kalasalingam.ac.in

Web-link of the AQAR:

kalasalingam.ac.in/site/wp-content/uploads/2017/12/AQAR-2016-17.pdf

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	B	2.81	2010	5Years
2	2 <sup>nd</sup> Cycle	A	3.11	2015	5Years
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

1.7 Date of Establishment of IQAC:

26/06/2010

1.8 AQAR for the year (for example 2010-11)

2016-17

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to NAAC on 12-10-2011)

AQAR 2015-16 submitted to NAAC on 21-12-2016

### 1.10 Institutional Status

University	State	<input type="checkbox"/>	Central	<input type="checkbox"/>	Deemed	<input checked="" type="checkbox"/>	Private	<input type="checkbox"/>
Affiliated College	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>				
Constituent College	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>				
Autonomous college of UGC	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>				
Regulatory Agency approved Institution (eg. AICTE, BCI, MCI, PCI, NCI)			Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		

Type of Institution	Co-education	<input checked="" type="checkbox"/>	Men	<input type="checkbox"/>	Women	<input type="checkbox"/>
	Urban	<input type="checkbox"/>	Rural	<input checked="" type="checkbox"/>	Tribal	<input type="checkbox"/>
Financial Status	Grant-in-aid	<input type="checkbox"/>	UGC 2(f)	<input type="checkbox"/>	UGC 12B	<input type="checkbox"/>
	Grant-in-aid + Self Financing	<input type="checkbox"/>	Totally Self-financing	<input checked="" type="checkbox"/>		

### 1.11 Type of Faculty/Programmes

Arts	<input checked="" type="checkbox"/>	Science	<input checked="" type="checkbox"/>	Commerce	<input checked="" type="checkbox"/>	Law	<input type="checkbox"/>	PEI (Phys Edu)	<input type="checkbox"/>
TEI (Edu)	<input type="checkbox"/>	Engineering	<input checked="" type="checkbox"/>	Health Science	<input type="checkbox"/>	Management	<input checked="" type="checkbox"/>		
Others (Specify)	B.Ed (Special Education), Agriculture & Architecture								

### 1.12 Name of the Affiliating University (*for the Colleges*)

Not Applicable

### 1.13 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University	<input type="checkbox"/>		
University with Potential for Excellence	<input type="checkbox"/>	UGC-CPE	<input type="checkbox"/>
DST Star Scheme	<input type="checkbox"/>	UGC-CE	<input type="checkbox"/>
UGC-Special Assistance Programme	<input type="checkbox"/>	DST-FIST	<input type="text" value="1"/>
UGC-Innovative PG programmes	<input type="checkbox"/>	Any other (Specify)	<input type="text" value="1"/>
UGC-COP Programmes	<input type="checkbox"/>		

## **2. IQAC Composition and Activities**

2.1 No. of Teachers	6
2.2 No. of Administrative/Technical staff	8
2.3 No. of students	5
2.4 No. of Management representatives	1
2.5 No. of Alumni	2
2.6 No. of any other stakeholder and Community representatives	1
2.7 No. of Employers/ Industrialists	1
2.8 No. of other External Experts	2
2.9 Total No. of members	62
2.10 No. of IQAC meetings held	4

2.11 No. of meetings with various stakeholders: No.  Faculty

Non-Teaching Staff  Students  Alumni  Others

2.12 Has IQAC received any funding from UGC during the year? Yes  No

If yes, mention the amount

2.13 Seminars and Conferences (only quality related)

i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos.	<input type="text" value="4"/>	International	<input type="text" value="-"/>	National	<input type="text" value="-"/>
State	<input type="text" value="-"/>	Institution Level	<input type="text" value="4"/>		

(ii) Themes

- Effective Faculty Advisor-ship and Quality Metrics.
- Question Paper Preparation in line with Bloom's Taxonomy Categorization.
- National level Workshop on Assessment and Accreditation.
- Outcome Assessment Procedure Implemented in KLU software.
- Outcome based Education & Bloom's Taxonomy.

## 2.14 Significant Activities and contributions made by IQAC

- The entire process of event registration and approval is made online.
- In-house software for data uploads with all parameters in IQAC metrics.
- Metrics formulated for Administrative audit.

## 2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year \*

Plan of Action	Achievements
Curriculum and Syllabus Revision	Revision of the curriculum and syllabus for programs in 2016-17 to adhere UGC guidelines in Choice Based Credit System (CBCS) will be implemented in 2017-18 batch.
Competitive Examination Centre (CCE)	Creation of a separate centre for competitive examinations with a dedicated director
Examination Question Paper Auditing	Post auditing of question paper with Bloom's Taxonomy Parameters
Implementing Automated Software	Automated software by IQAC for all the four IQAC criterions.
Introduction of New departments	Introduction of Agriculture and Horticulture Departments
Memorandum of Understanding (MoU)	Establishment of new Memorandum of Understanding (MoU's) with reputed industries and institutions (inside and outside India)

\* Attach the Academic Calendar of the year as Annexure.

2.16 Whether the AQAR was placed in statutory body      Yes      ☒      No      ☐  
Management      ☒      Syndicate      ☐      Any other body      ☐

Provide the details of the action taken

- The Board of Management has approved the AQAR and advised to submit to NAAC at the earliest.

## Part – B

### Criterion – I

#### 1. Curricular Aspects

##### 1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added/Career Oriented programmes
PhD	15	1	16	-
PG	40	-	40	-
UG	25	2	27	-
PG Diploma	-	-	-	-
Advanced Diploma	-	-	-	-
Diploma	-	-	-	-
Certificate	-	-	-	-
Others	1(B.Ed)	-	1(B.Ed)	-
<b>Total</b>	<b>81</b>	<b>3</b>	<b>84</b>	<b>-</b>
Interdisciplinary	5	-	5	-
Innovative	9	-	9	-

##### 1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options

###### **Provision of flexible facilities is:**

- Substitution of one elective by another elective.
- Make-up examinations for the students who miss the examination due to genuine reasons.
- Students exercising their options for subject teachers.
- Choosing of elective from PG programme (Honors).
- Choice based credit system- the student has the freedom to choose the courses of his/her interest.

###### **Elective schemes:**

- Professional major electives
- Professional minor electives
- Free electives
- Self study electives
- Humanities electives

###### **Special features of the Curriculum:**

- Full semester project from final year B.Tech students in industry and Research Laboratories.
- Transparent evaluation system. Early publication of results (within 10 days) after the examinations.
- Summer term courses to clear the backlog courses.
- Semester abroad scheme – MoU with more than 17 foreign countries.
- Personality development, skill development programs are mandatory for the students to make them as all round engineers – Non-CGPA credits.
- Massive Open Online Course (MOOC), an online course aimed at unlimited participation and open access via website portal.

- Community service project, Laboratory with Mini Projects and Theory with practical components are included.
- Provision for switching to another program.

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	28 undergraduate programs 40 postgraduate programs
Trimester	-
Annual	-

1.3 Feedback from stakeholders\* Alumni ☒ Parents ☒ Employers ☒ Students ☒  
(On all aspects)

Mode of feedback: Online ☒ Manual ☒ Co-operating schools (for PEI) ☐

*\*Please provide an analysis of the feedback in the Annexure*

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

- Yes, New Regulation is framed in February 2017 with fully flexible Choice based Credit System for B.Tech. And Arts and Science programme (applicable from 2017-18 batches).
- Curriculum and Syllabi will be revised for all the B.Tech. Programmes in next academic year.

1.5 Any new Department/Centre introduced during the year. If yes, give details.

**Departments:**

- Agricultural Engineering (UG Program)
- Horticulture (UG Program)
- Commerce (PG program i.e. M.Com Regular)
- Business Administration (MBA Advanced and Digital Marketing)
- Business Administration (MBA Finance and Business Manufacturing)

**Centers:**

- Intel- Intelligent Systems Laboratory for EEE Department (8<sup>th</sup> April 2016).
- Medical Lab Technology in Bio medical department.



## Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty	Total	Asst. Professors	Associate Professors	Professors	Others
	537	406	64	55	12

2.2 No. of permanent faculty with Ph.D. 213

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year	Asst. Professors		Associate Professors		Professors		Others		Total	
	R	V	R	V	R	V	R	V	R	V
	132	-	3	-	7	-	1	-	143	-

2.4 No. of Guest and Visiting faculty and Temporary faculty -      11      -

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	54	49	7
Presented papers	89	50	2
Resource Persons	22	19	3

2.6 Innovative processes adopted by the institution in Teaching and Learning:

- Learning Management Systems(LMS) to promote e-learning
- Theory with Practice
  - For the theory courses which are not having the allied laboratory course, practical component is added to the course.
- Laboratory with Project
  - For one of the laboratory courses in each semester, the students have to do a mini project, as a part of the laboratory course.
- Online Courses
  - The students are permitted to register for courses offered through web based online courses offered by other Universities/Institutions in India (Including NPTEL) or in abroad.
  - The on-line courses can be taken in place of self-study, one major / open elective and one honors course.
- One Credit Courses
  - The students are permitted to enroll one credit courses offered by the department with the help of experts from Industries or scientist from Research Laboratory or professors from abroad Universities who are in deputation to KLU in III, IV, V and VI semesters. The duration of each course is 15 hours.
- Community Service Projects
- Flipped Classroom for Lab Courses.

2.7 Total No. of actual teaching days during this academic year

180
-----

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

**1. Pre-Examination processes are automated through software**

- a. Preparation of examination timetable for
  - i. Sessional Examination – I, II, III.
  - ii. End Semester Examinations.
  - iii. Makeup Examinations.
  - iv. Arrear Examinations.
- b. Preparation of student random seating arrangements.
- c. Preparation of student attendance sheet.
- d. Preparation of invigilation duty for the faculty members.
- e. Provision for students to see their seating positions for examination in their SIS login.
- f. Android app developed for student SIS (app is available in Google PlayStore).

**2. Two level verification system to ensure the quality of the question paper**

- a. Program and Course Coordinators are asked to check the quality of sessional questions before sending the question papers for photo copying. The quality of the question papers is improved taking cues from the senior faculty and the HODs.
- 3. External question paper** – Question papers for the end semester examinations are collected from experts from reputed institutions.
- 4. External Question paper Auditing** – End semester question papers are audited by experts from reputed institutions and internal senior faculty. Based on the feedback from both the examiners the question papers are selected for printing.
5. Setting of outcome-based (Bloom's Taxonomy) Question paper for all sessional examinations and End Semester Examinations.
  6. Implementation of outcome-based mark entry and analysis in EDU-KLU Software.
  7. Implementation of Multiple Choice questions for Soft Skill courses.
  8. Various innovative assessment methodologies have been initiated. (Online Quiz, mini project, Theory with practical components, practical with mini projects, open book).
  9. Dummy numbering process; Encoding of Answer sheets.
  10. External valuation for End Semester Examinations.
  11. Sessional Examinations answer bundles are shuffled among the faculty for valuation.
  12. 10% of sessional Examinations questions are modified with the concern of the senior faculty members in the department before the examinations.
  13. Returning the answer papers within 3 days from the last date of Sessional Examinations.
  14. Preparation of Examination Performance Report for analyzing test results and immediate corrective actions.
  15. Sending the information to the parents about the performance of their wards.
  16. Provision for improvement examinations to students for genuine cases. It helps the slow learners to build their confidence.
  17. Automatically calculating the internal marks through software.
  18. Statement of grades issued with students photographs and unique number.
  19. CCTV Security system in COE office.

2.9 No. of faculty members involved in curriculum restructuring/  
revision/ syllabus development as member of Board of Study/  
Faculty/Curriculum Development workshop

537

2.10 Average percentage of attendance of students

90.33

2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Batch	Total no. of students appeared	Division			
			Honors%	Distinction %	First Class%	Pass %
ARC	2012	2	0	0	100.00	0
AUTOUG	2013	12	0	16.67	33.33	0
BIOUG	2013	72	9.72	6.94	65.28	2.78
CIVUG	2013	90	8.89	1.11	68.89	6.67
CSESHIP	2013	19	10.53	0	68.42	5.26
CSEUG	2013	64	7.81	1.56	68.75	4.69
ECEUG	2013	65	7.69	4.62	66.15	10.77
EEEUG	2013	25	24.00	0	68.00	0
EIEUG	2013	10	0	0	50.00	0
ICTUG	2013	13	0	7.69	46.15	0
INFOUG	2013	13	7.69	7.69	46.15	0
MANUUG	2013	6	0	0	66.67	0
MECHSHIP	2013	19	0	5.26	68.42	0
MECHUG	2013	172	0	4.07	79.07	3.49
BAENG	2014	18	0	11.11	22.22	0
BBAUG	2014	34	0	2.94	55.88	0
BCAUG	2014	14	0	0	85.71	0
BEDHI	2015	4	0	50.00	25.00	0
BSCCSUG	2014	15	0	6.67	86.67	0
BSCITUG	2014	5	0	0	80.00	0

## PG Programme

Title of the Programme	Batch	Total no. of students appeared	Division			
			Honors%	Distinction %	First Class%	Pass %
ARCPG	2015	3	0	33.33	66.67	0
BIOPG	2015	4	0	100.00	0	0
CIVCE	2015	6	0	50.00	50.00	0
CIVVE	2015	1	0	100.00	0	0
CIVSE	2015	3	0	100.00	0	0
CIVTP	2015	1	0	100.00	0	0
CSEPG	2015	6	0	66.67	33.33	0
ECEDCN	2015	4	0	75.00	25.00	0
ECEVLSI	2015	9	0	22.22	77.78	0
EEEREE	2015	1	0	100.00	0	0
EIEPG	2015	8	0	62.50	37.50	0
INFOPG	2015	6	0	50.00	33.33	0
MANUPG	2014	10	0	80.00	10.00	0
MBBAS	2015	9	0	11.11	66.67	0
MBAPG	2015	128	0	3.13	56.25	7.81
MCAPG	2014	33	0	15.15	81.82	3.03
MECHED	2015	4	0	50.00	25.00	0
MECHISE	2015	12	0	66.67	33.33	0
MECHTE	2015	1	0	100.00	0	0
MSWPG	2015	3	0	33.33	66.67	0
BIO_MPHIL	2016	1	0	100.00	0	0
CHYPG	2015	5	0	80.00	20.00	0
ENG_MPHIL	2016	11	0	54.55	36.36	0
ENGMA	2015	13	0	15.38	84.62	0
MAT_MPHIL	2016	13	0	38.46	61.54	0
MATPG	2015	5	0	20.00	60.00	0
PHY_MPHIL	2016	1	0	100.00	0	0

### 2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

- IQAC has implemented student feedback twice a semester with two different templates.
- Appointed Department level IQAC officers to post audit Sessional Examination Question Papers.
- Detailed academic audit is carried out.
- IQAC has evolved guidelines to ensure quality in the implementation of special courses and training to faculty to meet the compliance.

### 2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>		<i>Number of faculty benefitted</i>
Refresher Courses		290
UGC – Faculty Improvement Programme		147
HRD programmes		155
Orientation programmes		131
Faculty exchange programme		NIL
Staff Training conducted by the institute		366
Staff Training conducted by other institutions		-
Summer / Winter schools, Workshops, etc.		282
Others	PostDoctoral Research Fellow (Abroad)	6
	IRC Summer Fellowship	30
	Non-Teaching Program	4

### 2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	181	-	13	-
Technical Staff	55	-	6	-

### **Criterion – III**

#### **3. Research, Consultancy and Extension**

##### 3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

- Publication of UG projects in conferences and journals.
- Motivating students for summer fellowship.
- IQAC has implemented quality assurance system to help faculty members to attend good quality seminars and workshops.
- Special initiatives through International Research Centre (IRC) to encourage faculty members to submit project proposals.
- Library resources are constantly upgraded for research. A good number of reference books have been added during the academic year 2016-17.
- Faculty members are encouraged by providing credits in appraisal system for research papers and publication in journals.
- Research awards under three categories have been initiated to inculcate more quality research, publications.

##### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	8	9	10	35
Outlay in Rs. Lakhs	1,58,83,500	1,62,84,095	1,53,63,911	3,85,33,000

##### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	3	-	2	-
Outlay in Rs. Lakhs	2,33,190	-	90,000	-

##### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	256	7	1
Non-Peer Review Journals	33	3	-
e-Journals	5	-	1
Conference proceedings	156	70	-

##### 3.5 Details on Impact factor of publications:

Range	0.1-5	Average	0.89	h-index	47	Nos. in SCOPUS	301
-------	-------	---------	------	---------	----	----------------	-----

### 3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (in Lakh of Rs)	Received (in Lakh of Rs)
Major projects	2-3 Years	DST-SERB,CSIR,MoEF	316.48	83.41
Minor Projects	0.6 Year	IEDC,SERB,IEEE	3.23	3.23
Interdisciplinary Projects	-	-	-	-
Industry sponsored	1 Year	Thirdware Solution and Kalycito	0.09	0.09
Projects sponsored by the University/ College	1 Year	KARE	2.5	2.5
Students research projects ( <i>other than compulsory by the University</i> )	1Year	Byjus Classes, IEI	1.72	1.12
Any other(Specify)	1Year	IEDC	45.30	29.30
Total	-	-	369.32	119.65

3.7 No. of books published i) With ISBN No.  Chapters in Edited Books

ii) Without ISBN No

### 3.8 No. of University Departments receiving funds from

UGC-SAP  CAS  DST-FIST   
DPE  DBT Scheme/funds

### 3.9 For colleges

Autonomy  CPE  DBT Star Scheme   
INSPIRE  CE  Any Other (specify)

3.10 Revenue generated through Consultancy

### 3.11 No. of Conferences organized by the Institution

Level	International	National	State	University	College
Number	6	7	-	-	-
Sponsoring agencies	SERB,CSIR,NBHM,INSA, ISRO, BOSCH India ltd, IEEE Madras Section, DST-CNPq (Joint Project)	IETE,DST, ACT & RSC, Schwing Stetter India Pvt.Ltd.	-	-	-

3.12 No. of faculty served as Experts, Chairpersons or Resource Persons 88

3.13 No. of Collaboration      International 31      National 54      Any other -

3.14 No. of Linkages created during this year 7

3.15 Total Budget of research for current year in lakh of Rs:

From Funding Agencies 130, 00,000

From Management of University/College 340, 00,000

Total 470, 00,000

3.16 No. of Patents received this year	Type of Patent	Number
	National	Applied 7 Granted 16
	International	Applied - Granted -
	Commercialised	Applied - Granted -

3.17 No. of Research awards/ Recognitions received by faculty and research fellows  
Of the institute in the year

Total	International	National	State	University	Dist	College
42	12	14	5	6	-	5

3.18 No. of faculty from the Institution who are Ph. D. Guides 110  
and students registered under them 295

3.19 No. of Ph.D. degrees awarded by faculty from the Institution 32  
\*(JULY 2016 to JULY 2017)

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF 5      SRF 1      Project Fellows -      Any Other 52



3.21 No. of students participated in NSS events:

University level	1112	State level	-
National level	-	International level	-

3.22 No. of students participated in NCC events:

University level	104	State level	-
National level	-	International level	-

3.23 No. of Awards won in NSS:

University level	7	State level	-
National level	-	International level	-

3.24 No. of Awards won in NCC:

University level	-	State level	-
National level	-	International level	-

3.25 No. of Extension activities organized

University forum	15	College forum	-		
NCC	5	NSS	65	Any other	46

3.26 Major Activities during the year in the sphere of Extension Activities and Institutional Social Responsibility

- KLU NSS has organized sapling planting & campus cleaning at District Court & Town Police Station at Srivilliputtur on 27<sup>th</sup> May 2016.
- NSS volunteers are involved in the sapling plantation & garden cleaning inside the campus during 28<sup>th</sup> and 29<sup>th</sup> May 2016.
- Blood Donation Camp has been organized by KLU NSS at Kunnur Government Hospital, near Krishnankoil during 13<sup>th</sup> July 2016.
- An Outreach Program has been organized at Vallalar Illam (Orphanage), near Srivilliputtur during 23<sup>rd</sup> July 2016.
- KLU NSS also involved in the crowd controlling process during the Andal temple car festival during 5<sup>th</sup> August 2016 at Srivilliputtur.
- One day Seminar on “Swachhta Program” has been organized at the institute in connection with the Independence Day celebration.
- NSS Camp on “Clean India Program” at Poovani Village, near Srivilliputtur has been organized and tree plantation is also done by NSS volunteers at the institute during 27<sup>th</sup> August 2016.

- “Blood Donors Day”, program coordinator received ‘First Place Award’ at Madurai Meenakshi Mission Hospital on 1<sup>st</sup> October 2016.
- KARE organized a welfare program for the 12<sup>th</sup> Grade Students on 25<sup>th</sup> October 2016 and Viruthunagar Collector Mr. Sivaganam distributed guide books to students.
- KLU NSS has organized 7 days Special Camp of Clean and healthy awareness, Dengue awareness program at Krishnapuri, T.Manaseri, Kattayathevanpatti, Thulakampatti, E.Naduvapatti and Nagapuram during 1<sup>st</sup> December to 7<sup>th</sup> December 2016.
- “Yes I can” an encouraging program held on KARE for the disabled students in and around the institute area during 3<sup>rd</sup> December 2016 (World Disability day).Competitions for physically challenged students are carried on and prizes were distributed.
- Awareness Rally on Global Warming by our Green Army has carried on 9<sup>th</sup> January 2017 and 270 free saplings are provided.
- Seven days POs Training program has been organized by KLU NSS at Avinashilingam University Coimbatore dated 19<sup>th</sup> to 25<sup>th</sup> January 2017.
- Nearly 200 NSS Students participated in the Blood donation and Workshop on uprooting karuvelam tree on 30<sup>th</sup> January 2017.
- KLU-NSS organized a “Swine Flu Awareness Rally“at Meenakshipuram near Srivilliputtur on 4<sup>th</sup> March 2017.
- “Karuvellam (Prosopis Juliflora) Tree Eradication Awareness Rally“has done by KLU NSS at Pattakulam & Nathampatti near Srivilliputtur during 5<sup>th</sup> March 2017.
- Sathuragiri Sundaramahalingam Temple Hundi coin counted by our NSS Volunteers on 22<sup>nd</sup> & 23<sup>rd</sup> March 2017.
- NSS-POs meeting and Blood donation Camp organized with Madurai Rajaji Government Hospital at Institute campus during 30<sup>th</sup> and 31<sup>st</sup> March 2017 respectively.
- KARE has created a Placement skill training centre for the visually impaired students on 16<sup>th</sup> May 2017.
- On 23<sup>rd</sup> May 2017 our third year civil engineering students devised a “Simple water filter using charcoal and sand” to treat water and implemented in nearby villages.

## **Criterion – IV**

### **4. Infrastructure and Learning Resources**

#### 4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	100 Acres	58 Acres	Management	158 Acres
Class rooms	146	53	Management	199
Laboratories	119	1	Management	120
Seminar Halls	16	-	Management	16
No. of important equipment purchased ( $\geq$ 1-0 lakh) during the current year.	126	56	Management	182
Value of the equipment purchased during the year (Rs. in Lakhs)	449.88	159.12	Management	609.00
E-Books	971	-	Management	971

#### 4.2 Computerization of administration and library

- Library functions have been automated and circulation of reading material is done using 'MODERNLIB' software.
- The software provides various modules such as acquisition, cataloguing, transaction etc. Online Public Access Catalogue (OPAC) facility is available for searching the availability for searching the availability of the resources.
- Entire correspondence happens through E-mail and Hence, KARE is moving towards paperless office.

#### 4.3 Library services:

Description	Existing (Upto June'16)		Newly Added (After June'16)		Total	
	No.	Value (Rs)	No.	Value (Rs)	No.	Value (Rs)
Textbooks	71966	22447254	3298	1567212	75264	24014466
Reference Books	4820	15896526	127	730856	4947	16627382
Journals	236 (For 2016)	626620	236 (Existing)	650124	273 (For 2017)	700324
			37 (New)	50200		
E-Journals & Digital Database	285 (For 2016)	747185	285 (Existing)	747185	327	813953
			42 (New)	66768		
CD, Video etc.	6227	132397	205	Cost included in the print books	6432	132397

#### 4.4 Technology upgradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	2080	25	170Mbps	3	2	-	15	-
Added	-	-	76Mbps	-	-	-	-	-
Total	2080	25	246Mbps	3	2	-	15	-

#### 4.5 Computer, Internet access, training to teachers and students and any other programme for technology up gradation (Networking, e-Governance etc.)

Institute has a wide networking facility connecting all the academic blocks and hostels through optical fibres. Institute campus is 24/7 Wi-Fi enabled and all the academic blocks and hostels are installed with access points for Wi-Fi access. Internet facility is available on 24/7 basis through 246 Mbps internet bandwidth. Institute is also connected to National Knowledge Network (NKN) through 1Gbps connectivity.

Institute has signed an MoU with IIT Bombay spoken Tutorial Program. This spoken Tutorial activity is funded by the National Mission on Education through ICT, MHRD, government of India and run out of IIT Bombay. Also IIT will conduct software Training Program, free of cost to all the Departments of Institute by this agreement. Besides IIT Bombay Issue certificates from spoken Tutorial, IIT Bombay for courses learned. Also IIT Provides the promotional material like posters, brochures, leaflets, banners etc., to the institute at free of cost.

#### 4.6 Amount spent on maintenance in lakh of Rs:

i) ICT	1, 35, 64,320
ii) Campus Infrastructure and facilities	11, 32, 83,152
iii) Equipments	1, 59, 12,676
iv) Others	1, 21, 76,312
<b>Total:</b>	<b>15, 49, 36,460</b>

## Criterion – V

### 5. Student Support and Progression

#### 5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- Faculty advisory system has been brought under the purview of IQAC through which the faculty advisors are guided to create awareness among students to improve performance in IQAC quality parameter metrics concerning students' activities.
- Hostel modernization.

#### 5.2 Efforts made by the institution for tracking the progression

- Student Support:
  - Faculty Advisory System
  - Class Coordinator system
- Student Progression
  - The Institute houses the office of alumni affairs, which bridges the students with the alma mater. To facilitate this, a user-friendly web portal was launched where all the old students, current students, faculty and management can register themselves and update their progress in personal and professional career.
  - The URL of the web portal is [www.kalasalingam.almaconnect.com](http://www.kalasalingam.almaconnect.com) and frequent alumni get together are also organized by the central office and the departments. Alumni are also invited for guest-lecture and symposium.

#### 5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
5697	572	272	-

#### (b) No. of students outside the state

UG	PG
819	17

#### (c) No. of international students

4
---

Last Year(2015)						This Year(2016)					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
562	178	5	1526	-	2271	671	430	9	5142	17	6269

\* PhD Scholars not included.

Men	No	%	Women	No	%
	4378	69.8		1891	30.16
Demand ratio	1.65:1		Dropout %	4.21	

#### 5.4 Details of student support mechanism for coaching for competitive examinations (If any)

- In order to access the e-resources subscribed in our institutions, number of computers have been increased in the library section.
- For accessing the media resources such CD/DVD, Audio cassettes, video cassettes, VCD s a Media Resource centre (MRC) has been created.
- A separate resource cell has been created with 1300 books for competitive examinations conducted by UPSC, TNPSC, SSC, Railway, and banking Sector. Also resources are made available for GATE, GMAT, GRE, TOFEL etc.
- A Well-furnished video conferencing facility has been created.
- Institutional Digital Repository has been developed using open source software ‘DSpace’ which provides GATE question papers from the year 1991 till date.
- Question papers for all examinations conducted by UPSC from the year 2011 have been kept in the Question bank. The repository can be accessed on the campus network.

#### **Guidance for coaching classes:**

- KARE has established the “Kalasalingam IAS training Academy “and the “ICS-preliminary coaching” for offering training and support to students who aspire for Civil Services.
- BEC (Business English Certification) training for effective English language communication.
- GATE coaching is offered.
- Mock interview sessions and group discussions are conducted frequently for the final year students to hone their communication skills.

The outcome of the training programs is reflected in the improvement in placements of students in various companies and admission of our students for higher studies in India and abroad.

#### **Competitive Exams:**

The competency/ skill-set required is being provided to the students to take up the competitive examination like GATE, GRE, etc., through well experienced teaching faculty. KARE also provides opportunities for students to undertake industrial training and project work in research centers, government and private organizations. The institute curriculum is designed to impart effective communication skill in English for the Engineering graduates.

#### **Business English Certification:**

- Special training is regularly offered to students to crack Business English Certification (BEC) Preliminary, Vantage and Higher.

#### **International Certification:**

- IBM certification is offered by IBM Centre of Excellence CISCO, Oracle and Microsoft certifications have been offered through TIFAC CORE in Network Engineering.
- The recently established National Instruments supported innovation laboratory offer training and certification in LABVIEW, AUTOCAD, CREO and Solid works are also offered to the students of Mechanical and Automobile Engineering.

- Students also get credits as a part of their non-CGPA requirements.
- International certifications like Oracle Certified Java Programmer (OCJP), Cisco Certified Network Administrator (CCNA) and foreign languages like German, Romanian, French and Korean are taught on campus which enable our students globally competent.

#### **MOOC:**

- Online MOOC courses have been offered by leading universities around the world and awards credits to students who successfully complete these courses.
- KARE is updating the curriculum and syllabus whenever there is a need. In the recent initiatives, students obtaining certification through online courses (NPTEL, MIT, Open Courseware, MOOC and COURSEARA etc) are given credit. Our students are encouraged to take such courses.
- Use of new ICT enabled technologies and pedagogy (for curriculum enrichment through online courses from NPTEL/MOOC/COURSEARA) is adopted.

For the upcoming academic year, Action plan has been mooted and obtained Management approval for GATE, BANK, SSC, ICS examinations.

No. of student beneficiaries 242

#### **5.5 No. of students qualified in these examinations**

NET	<span style="border: 1px solid black; padding: 2px 10px;">-</span>	SET/SLET	<span style="border: 1px solid black; padding: 2px 10px;">-</span>	GATE	<span style="border: 1px solid black; padding: 2px 10px;">2</span>	CAT	<span style="border: 1px solid black; padding: 2px 10px;">8</span>
IAS/IPS etc	<span style="border: 1px solid black; padding: 2px 10px;">-</span>	State PSC	<span style="border: 1px solid black; padding: 2px 10px;">-</span>	UPSC	<span style="border: 1px solid black; padding: 2px 10px;">-</span>	Others	<span style="border: 1px solid black; padding: 2px 10px;">-</span>
IELTS	<span style="border: 1px solid black; padding: 2px 10px;">2</span>	TANCET	<span style="border: 1px solid black; padding: 2px 10px;">4</span>	BEC	<span style="border: 1px solid black; padding: 2px 10px;">211</span>		

#### **5.6 Details of student counselling and career guidance**

The professional counsellor Mr.X.P.White, Madurai and Dr.Kalyani, Rajapalayam have been giving Counselling for the students.

#### **Career guidance:**

The Centre for Competitive Exams (CCE) is conducting coaching classes and mock tests for various exams like GATE, GRE, TOFEL, ICS, BANKING, Service Commission, Defence and IES.

Final Year UG/MBA/MCA students are benefitted.

#### **5.7 Details of campus placement**

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
76	729	674	15

## 5.8 Details of gender sensitization programmes

On 7<sup>th</sup> March 2017 International Women's Day was celebrated. Various events were conducted to bring out their talents. Certificates and medals were distributed for their achievements.

## 5.9 Students Activities

### 5.9.1 No. of students participated in Sports, Games and other events

State/ University level  National level  International level

No. of students participated in cultural events

State/ University level  National level  International level

### 5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports: State/ University level  National level  International level

No. of students participated in cultural events

Cultural: State/ University level  National level  International level

## 5.10 Scholarships and Financial Support

	Number of students	Amount (Rs.)
Financial support from institution(first graduate, merit-scholarship and sports scholarship)	1145	2,08,62,500
Financial support from government/(National scholarship)	50	7,25,825
Financial support from other sources	565	29,12,975
Number of students who received International/ National recognitions	22	70,10,000
Number of students who received International/ National recognitions	-	-

### 5.11 Student organised / initiatives

Fairs : State/ University level  National level  International level

Exhibition: State/ University level  National level  International level

### 5.12 No. of social initiatives undertaken by the students



5.13 Major grievances of students (if any) redressed:

- Organization of Cultural programmes on weekly holidays for willing participants
- Placement carrier guidance information to reach students in advance
- Examination timetable information should be provided well in advance

## **Criterion – VI**

### **6. Governance, Leadership and Management**

#### 6.1 State the Vision and Mission of the institution

##### **Vision:**

- To be a Centre of Excellence of International repute in education and research.

##### **Mission:**

- To produce technically competent, socially committed technocrats and administrators through quality education and research.

#### 6.2 Does the Institution has a management Information System

- EASY(Exam Administration System)
- SIS(Student Information System)
- Touch SIS(Student Information System touch-screen version)
- AIMS-(Attendance Information Monitoring System)
- OCRS-(online Course Registration)
- FIS-(Faculty Information System)
- KLU-IQAC

#### 6.3 Quality improvement strategies adopted by the institution for each of the following:

##### 6.3.1 Curriculum Development

- Deputing the senior faculty members to attend the workshop on curriculum development.
- Brain storming sessions involving Deans and HoDs.
- Interaction with the Industry experts.

##### 6.3.2 Teaching and Learning

- Workshop on e-learning.
- Training program on “effective teaching” and “Time management” to new faculty.
- Training programme on “Conducting Laboratory Courses”.
- Usage of ICT tools for effective teaching.

##### 6.3.3 Examination and Evaluation

- End semester Question papers audited by external experts from reputed institutions and also by internal senior faculties of the department.
- More than 90% of question papers are collected from external experts.
- More than 95% of answer Booklet evaluated from external examiners.
- Around 5-10% of papers – double valuations are done
- Post-answer paper audit processes are carried out by the external experts from reputed institutions.

#### 6.3.4 Research and Development

- A research scholar is permitted to submit synopsis if he/she has at least three papers (either published or accepted) in peer-reviewed (Scopus cited) journals/refereed conference proceedings, with at least one of them under the category of SCI Journals with Impact factor.
- The institute has authenticated software and all the research papers and Ph.D. theses must be tested using the same prior to submit to the journal and prior to submit to the institute, respectively. It is insisted that the similarity index indicated by the software should be less than 20%.

#### 6.3.5 Library, ICT and physical infrastructure/instrumentation

- E-Library – For accessing the e-resources subscribed in our institutions number of computer systems are increased in the E-Library section.
- Media Resource Centre (MRC) – For accessing the media resources such as CD/DVD, Audio cassettes, video Cassettes, VCDs a Media Resource Centre (MRC) has been created with required facilities.
- Resource Cell for Competitive Examinations- A separate resource cell has been created with more than 1300 books for competitive examinations conducted by UPSC, TNPSC, SSC, Railway, Banking sector. Also resources available for GATE, GMAT, GRE, TOEFL etc.
- Video Conferencing Facility – A video conferencing section has been created with the state-of-the-art facilities.
- Institutional Digital Repository has been developed using an Open Source Software ‘DSpace’ which provides GATE question papers from the year 1991 till date. Question papers for all examinations conducted by UPSC from the year 2011 are available. The repository can be accessed in the campus network.

#### 6.3.6 Human Resource Management

KARE ensures, there is adequate number of teaching and non-teaching staffs for smooth conduct of institute events. Also KARE has provisions to improve existing human resources.

- A well-laid policy is practised for staff recruitment.
- Faculty Development Programmes for teaching staff on Training the trainees - in collaboration with NASSCOM, Microsoft.
- Regular activities are monitored and suggestions are given for the improvement.
- Faculty members are encouraged for Industrial consultation.
- Faculty members are motivated to attend reputed conferences, seminars, workshops and FDPs etc through vigorous quality measures.
- Publications in reputed journals by the faculty members are specially recognized.
- Academic achievements are well recognized and awarded every year on ‘Engineer’s day’ by the department of IQAC.

#### 6.3.7 Faculty and Staff recruitment

- KARE calls for various vacancy positions depending upon the requirement of the department through advertisements in leading national dailies. Faculty members are recruited based on their specialization. The interview panel consists of both internal and external experts. The recruitment process includes written test, short lecture and personal interview. The candidates would be selected based on their aptitude to teaching-learning, communication skills and professional ethics.

- In order to accommodate the new faculty into the new institutional atmosphere, a Faculty Induction program is been conducted for the newly joined faculties. Also faculty development programs were conducted periodically. KARE offers a good package for highly qualified and well experienced faculty members.

#### 6.3.8 Industry Interaction / Collaboration

- In order to exchange technical knowledge with industries, KARE has executed memorandum of Understanding (MoUs) in almost every department. This helps the departments to organize technical sessions/seminars with industrial experts and to motivate students for in-plant training and internships. Industrial experts from various companies are invited as chief guest for seminars, guest lectures and workshops.
- To make industry oriented teaching learning process, semester long project work at industry, students' participation in industrial consultancy projects, guest/expert lectures on topics beyond syllabus by practicing experts from industry are conducted.

#### 6.3.9 Admission of Students

- Admission process is done based on the performance of students in their qualifying examinations and Kalasalingam University Entrance Examination. (KLUEE).
- A Rank list is prepared and admissions are made based on merit list.
- JEE admissions are also made based on the seat allocation from CSAB.
- KARE ensures accessibility in admission to backward community students, OBC, SC/ST, economically weaker students and outstanding achievers in sports.
- KARE ensures a wide publicity in admission process through advertising in newspapers, local television channels, educational fairs and providing updated information online website. Advertisement through online mode is implemented.

#### 6.4 Welfare schemes for:

Teaching	CL, Medical Leave and Maternity leave, PF
	MoU with bank for personal loans at lower rate of interest
	Group Insurance
	The faculty Tour program sponsored by management through the Staff Recreation Club (SRC)
Non Teaching	CL, Medical Leave, Insurance and Pension scheme, PF, ESI
Students	Educational Loan Facilities by bank MOUs

#### 6.5 Total corpus fund generated

237, 51, 75,039

#### 6.6 Whether annual financial audit has been done

Yes

√

No

6.7 Whether Academic and Administrative Audit (AAA) have been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	Experts from other institutions	Yes	Senior faculty members by the office of Dean Academic
Administrative	Yes	Experts from institutions	Yes	IQAC office conducts the audit of various sections in the institute.

6.8 Does the University/ Autonomous College declare results within 30 days?

For UG Programmes	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
For PG Programmes	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

Various activities of the Controller of Examination office that include:

1. Implementation of outcome based education related mark entry and their analysis were carried out in KLU-EDU software.
2. Implementation of multiple choice questions for Soft Skills examinations.
3. Various innovative assessment methodologies of examinations were initiated. (Online Quiz, Mini project, Theory with practical components, Practical with Mini projects, Lab with Mini project, Open book).
4. Conduct evaluation of sessional examination answer sheets by either other batch/section of same course or one who handled in previous year of the same course faculty.
5. The schedule of end semester examination of both theory and laboratory courses are discussed with respective schools after that declared to the students in one month advance
6. Academic calendar, schedule of theory and laboratory examinations and its other information's are published in the institute website.
7. Restricted access to COE office ensures the discretion in data storage and handling are under continuous monitoring of CCTV camera.
8. Conduct examinations
  - a. Seating arrangements prior to the exams.
  - b. The attendance sheet.
  - c. Invigilator schedule.
9. The panel of external examiners for question paper setter and evaluation of answer sheets are approved by member of board of examiners (MBE)
10. Question paper scrutiny by a team of external faculty members from reputed institutions / Universities.
11. Remuneration, TA and DA to external examiners for valuation.
12. Centralized End semester Examinations
13. Uninterrupted power supply
14. Good printing and reprographic facilities
15. Rack server facilities for data storage and safety with backup.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?  
Not Applicable

6.11 Activities and support from the Alumni Association

- Alumni Association creates opportunities for the current students, where the alumni members share their career experience and that helps the students to get upgraded with the current and emerging trends in their field of specialization.
- Alumni meet is conducted annually for the alumni members to provide an opportunity to cherish their memories and to develop good affinity with the institute.

#### **Activities and Support from the Alumni Association (2016-2017)**

##### **Guest lecture:**

- Guest lecture was conducted by Automobile department on 28th August 2016 and Alumni guest for the program was Mr.P.Subburaj, (2014, M.Tech Automotive Systems Engineering) Quality engineer, Fiat Chrysler automobiles India pvt ltd.
- Guest Lecture organized by Cyber Forensics lab on 3rd September 2016 and Alumni guest for the program was Mr.Sathish Viswanathan,(1991 CSE) Vice president, NETGEN data centre and cloud Technologies, Bangalore.
- Guest lectures organised by CSE dept on 15<sup>th</sup> October 2016 and the following alumni have delivered their valuable lectures:
  - Mr.G.Pragadeeshwaran, Programmer Analyst, Cognizant Technology Solutions, Chennai has delivered a lecture on Automation testing tools& raising digital world.
  - Mr.B.Niranjan, Software Engineer, HCL Technologies, Chennai has delivered a lecture on Mobile Application Development.
  - Mr.L.Kokulakrishnan, Programmer Analyst, Cognizant Technology Solutions, Chennai has delivered a lecture on Machine Learning.
  - Mr. Praveen Kumar Rajendran, Programmer Analyst, Cognizant Technology Solutions, Chennai has delivered a lecture on SMAC.

##### **Workshop:**

- Two day Workshop on Occupational Health and safety on 17<sup>th</sup> and 18<sup>th</sup> February 2017 organized by mechanical department.
- Alumni Guest Mr.C.Arunpandiyan, Deputy EHS officer Morgan Ceramics pvt ltd, Chennai and Mr.N.Muthuraman, Safety engineer, T&I cycle pvt ltd, Ambattur- Chennai.

##### **National Conference:**

- National Level Conference on “Emerging Technologies in design and manufacturing (ETDM 2017) on 10<sup>th</sup> February 2017 organized by mechanical department.
- National level Conference on “Research Innovation in materials, construction techniques and sustainable Development (RIMTSO-2017) on 31<sup>st</sup> march 2017 organized by civil engineering department.

##### **International Conference:**

- International Conference on Automotive Systems, Agricultural Equipment and Manufacturing – ICAAM2017 on 9<sup>th</sup> January 2017 organized by Automobile Department in jointly with the School of Agricultural Sciences.
- Department of EIE jointly with IEE, CSIUR and HRDG has organized IEEE CSS winter school on 5<sup>th</sup> January and 8<sup>th</sup> January 2017.

- International Conference on Intelligent Techniques in Control Optimization and signal processing INCOS17 on 23<sup>rd</sup> to 25<sup>th</sup> March 2017 organized by IEEE Alumni Guest for the conference were
  - Dr.K.Punitha, PSR Engineering College, Sivakasi.
  - Dr.R.Sridhar, SRM University.
  - Dr.P.Duraipandi, Velammal Engineering College, Madurai.
- International Conference “Innovation Trends in Technology and Management” on 30<sup>th</sup> and 31<sup>st</sup> March 2017 organized by the MBA Department.

#### 6.12 Activities and support from the Parent – Teacher Association

- Parent-Teacher Meeting is regularly conducted in each semester where parents’ views are taken into account and serious attention is paid to their feedback.
- Parents are frequently updated with the current happening in the institute through SIS- Student Information System (web portal), SMS and by calling over phone.

#### **Department PTA Meeting Expenses, National & International Conferences:**

S.NO	Department	Amount
1	ENGLISH	4715
2	ARCH	16000
3	MBA	5000
4	AUTO	10000
5	BIOTECH	18633
6	BIOMED	8252
7	CHEM	2550
8	CSE	9565
9	ECE	11957
10	EEE	17834
11	FOOD	9578
12	IT	14628
13	EIE	4113
14	Lunch during PTA Meetings	123910
	<b>Total</b>	<b>256735</b>

#### 6.13 Development programmes for support staff

- A Staff Refreshment program was arranged on 8<sup>th</sup> January 2017 at Pilavakkal dam, Virudhunagar District.
- Yoga Camp was conducted through “Heart Fullness Foundation” at Aliyar dam, Coimbatore on 30<sup>th</sup> January 2017.

#### 6.14 Initiatives taken by the institution to make the campus eco-friendly

Green Army is put into service. It is composed of a group of student volunteers who are responsible to keep a watch on the judicious use of resources (energy, fuel and food) and clean and green the environment. It is the combination of NCC/NSS/Nature Club and Application of Technical Knowledge. The Moto of the Green Army is “To educate young minds to exhibit environment friendly habits with technical skill”. The broad objectives of the Green Army are:

- Ensure judicious use of resources to minimize energy consumption.
- Ensure litter-free environment inside the campus.
- Organize events in line with “Swachh Bharath Abhiyan” campaign within the campus and outside the campus under the leadership of faculty members in every semester.
- Educate and advice fellow students to follow environment friendly practices inside and outside the campus.
- Report to the Green Team Faculty Advisers if any abuse of environment by any one on campus is observed.

#### **Other Initiatives taken by the Green Army**

Sustainable policy for the institute was developed to achieve carbon neutrality and to reduce the environment impacts. Their objectives are

1. Steps initiated for e-waste management and green computing.
2. Development of Green Lawman.
3. Efforts are taken for Carbon Neutrality.
4. Use of Renewable Energy such as Solar Energy.
5. Planting of trees inside the campus during campus events.
6. Rain Water Harvesting with constructing check dams.
7. Water Recycling.
8. Landscaping and Renovation of old buildings.
9. Children Day-Care Centre and Recreation Centre.

The policy is communicated to all the concerned within the campus and reviewed periodically for its effectiveness with continual improvement.

- “Green Book”, a compilation of green initiatives have been carried out within the campus.
- Solar Cities Program has been registered for the development of green campus with USC-MNRE.
- Campus Tree Care Plan has been formulated and necessary action has been initiated as per plan.
- Solid Waste Management Scheme, Liquid Waste Management Scheme and E-waste Management Scheme have been taken up effectively.
- Shop keepers inside the campus are informed not to use plastic bags, carry bags, plastic cups and plastic packing materials and burning of plastic materials is also strictly prohibited.
- The Institute is a plastic-free campus.

With all these efforts KARE is being ranked 9<sup>th</sup> at the national level on “World University Green Metric-Ranking-2016”, an initiative carried out by University of Indonesia and also ranked at 374 among world universities with an overall score of 3485.



## **Criterion – VII**

### **7. Innovations and Best Practices**

7.1 Innovations introduced during this academic year have created a positive impact on the functioning of the institution. Give details.

Innovative practices which created positive impact are as follows:

1. Flipped Classrooms
  - a. For all the laboratory courses in B.Tech Programme, flipped classroom videos are created by the faculty members. For theory courses in all the programmes, the process is in progress.
2. One-Credit Courses
  - a. One-Credit Courses are successfully implemented through industry and research lab personnel in all B.Tech Programmes. The entire course is conducted and evaluated by the resource persons.
3. Online Courses
  - a. KARE has taken a lead by introducing transfer of credits for online courses up to 3 credits.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

<b>Plan of Action</b>	<b>Action Taken Report (ATR)</b>
Revision of the Curriculum and Syllabus for programs in 2016-17 to adhere to UGC guidelines in Choice-Based Credit System(CBCS)	Curriculum raised based on the academic council meeting
Creation of a separate centre for competitive examinations with a dedicated director	The centre is active with continued training programs for GATE, UPSC, Bank exams etc.
Post auditing of question paper with Bloom's Taxonomy	Question papers are post audited by IQAC
Automated software created by the IQAC for all the four IQAC criterions.	Data relevant to faculty, students, research activity & event organised are uploaded through KLU-IQAC web server.
Introduction of Agriculture and Horticulture departments	Based on the approval from the Academic Council and for the benefit of rural students, such programmes are initiated.
Signing of new Memorandums of Understanding (MoU's) with reputed industries and institutions (inside and outside India)	A total of 10 MoU's for the student exchange, faculty exchange for student training and placement has been signed.

7.3 Give two Best Practices of the institution (*please see the format in the NAAC Self-study Manuals*)

## Best Practice - I

### 1. Title of the Practice

- Community Service Project

### 2. Objectives of the Practices

The primary objectives of this practice are:

- To develop professional self of students with Community Service.
- To create community sentiments among the student.
- To initiate for the locality development with academic expertise of the students.
- To empower students to work with other students on community service-related projects to deliver technical solutions.

### 3. The Context

The initiative on community service project in the Institute was started in 2015-2016 academic year with the objective to develop community involvement and commitment among the young professionals by seeking solution to the immediate problems or need of the common or marginalised people in the community or nearby locality. Community service is a not-for-pay activity that is performed by someone or a group of people for the benefit of the public or its institutions. It is a method by which students participate in service-related experiences that address community needs while also learning academic skills and/or content connected to the service, and engaging in structured reflection on the service experience. The students with their exposure may put into practice their skills and thus help alleviate the unfortunate brethren living around. By learning and serving at the same time, one can improve their community and surroundings while learning life lessons. The KLU management provides fund for the best three projects from every department for implementing these projects in the community and building character in ways that will help them to further impact the world in the future.

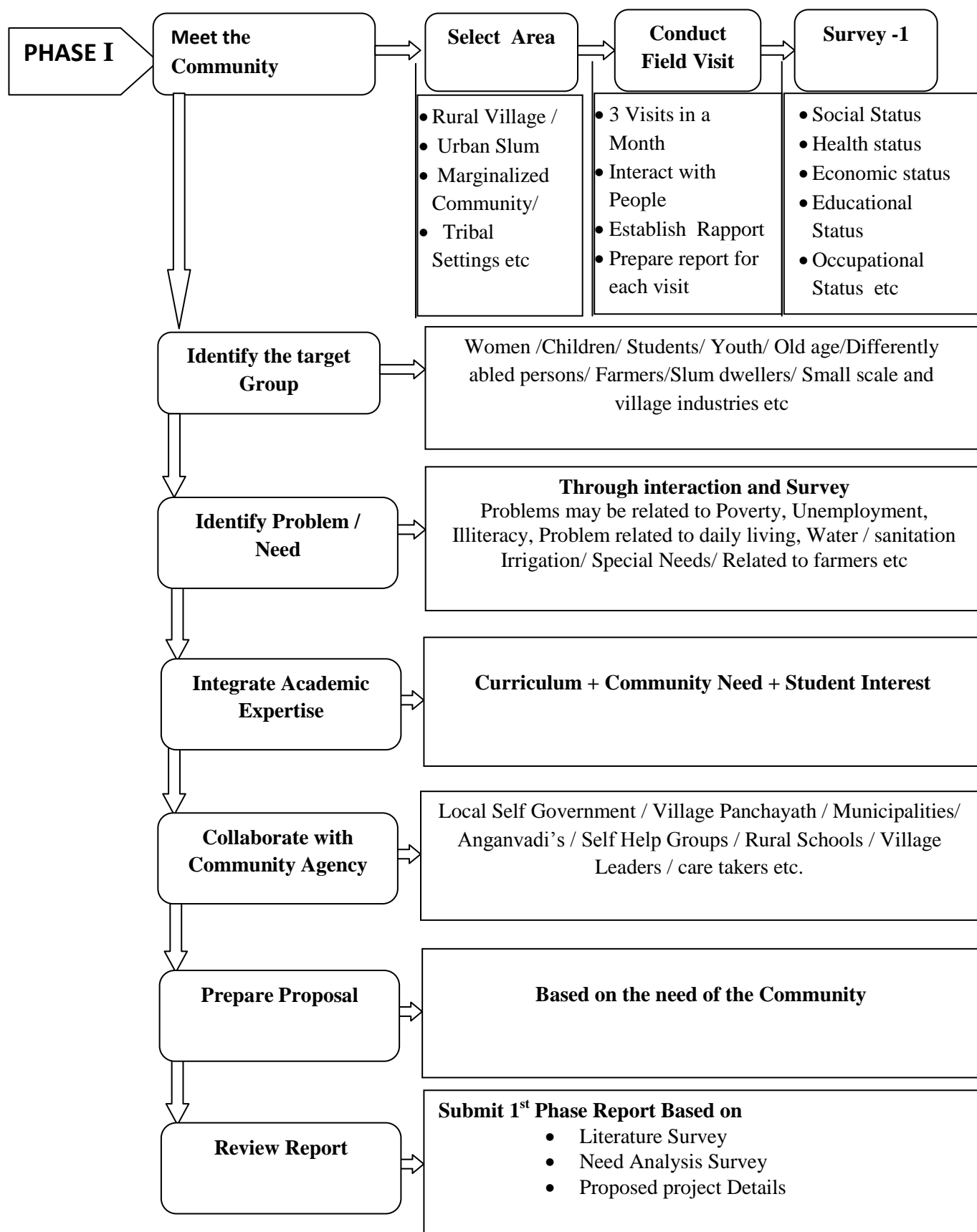
### 4. The Practice

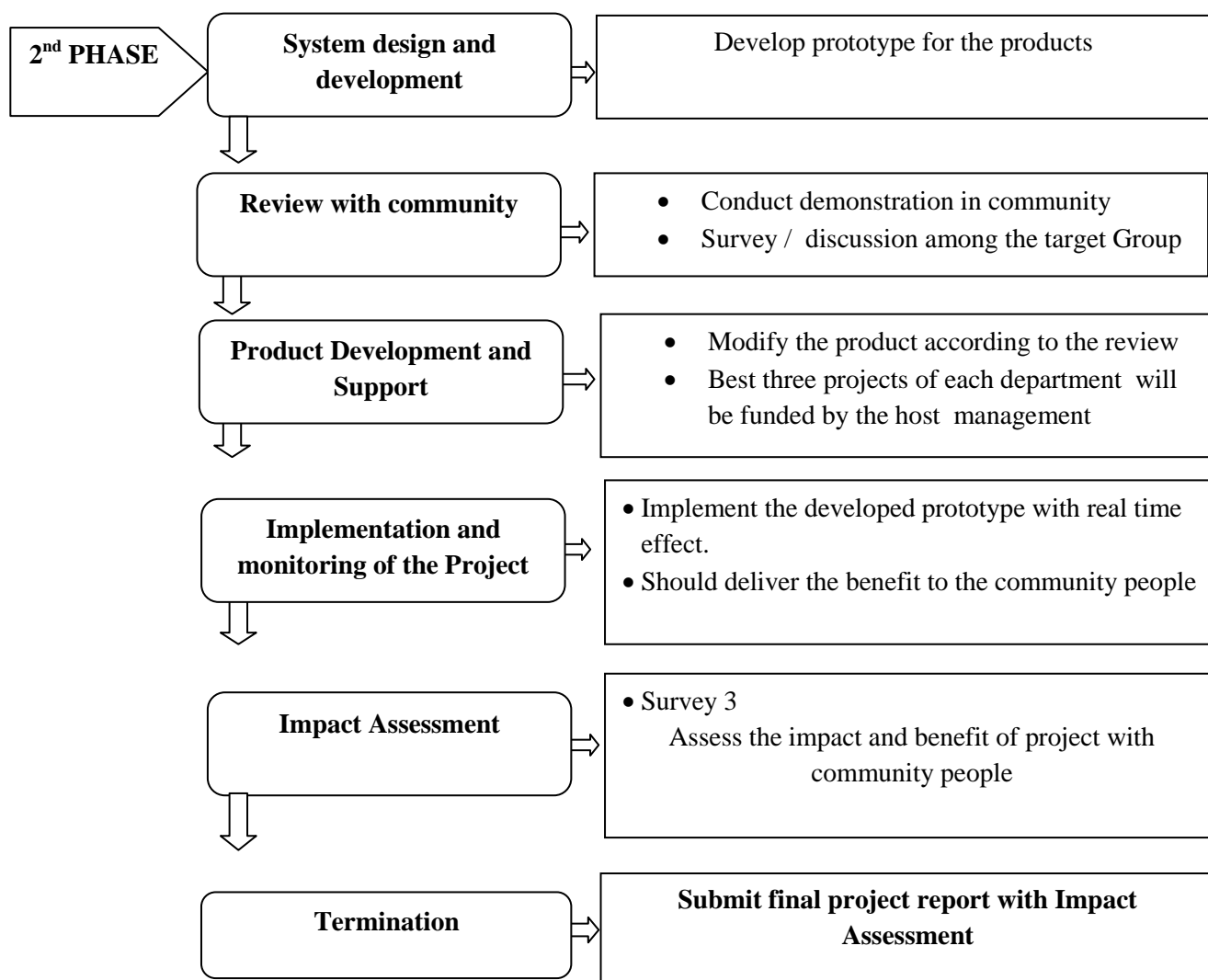
Duration: 1 Year

Phase 1: V Semester (1 Credit)

Phase 2: VI Semester (2 Credits).







## 5. Evidence of Success

### Community service projects in the Academic Year 2015-2016.

In this year a total of 127 projects have been carried out from 9 Engineering branches with the aim to impart academic knowledge for the locality development. Among the 127 projects, 21 best projects were selected for funding from management. Some of the sample projects are Removal of Bi Carbonate Components in Ground Water,; Simple Composting of Organic Wastes and Treatment of Textile Industry; Waste Water Using Eco-friendly Method adopted by the Civil department; Composite Boat Propeller for fishermen community from the Mechanical department; Wastage Clearance Alert system and Fifth Sense Health Prediction from the Computer Science Department; Braille Nature Trails; Dangers of Driving in inebriated condition and Eating Healthy on a budget from the IT department. Anti-Harassment Girls Safety Device and GAS Leakage Detection from ECE department. Solar Powered Auto Irrigation System and Solar Water Pumping & Monitoring system for rural area; Blind Helper Stick from the EIE departments are some of the note-worthy projects.

### Community service project in the Academic Year 2016-2017

In all, 131 community service projects have been successfully completed in the academic year 2016-17 from ten Engineering departments of the institute. Among 131 projects, 15 best projects were selected for management funding with amount as Rs. 8000/- Rs.6000/- and Rs. 4000/- for the projects accruing first, second and third rank positions respectively. List of best projects are appended below:

Sl.No	Name of the Students	Title of the Project
<b>BIOTECHNOLOGY</b>		
1	R.Rinisha Alice K.Steffy Hema Kirubalini	Bio-control agents using Bilmibi and Chilli extract to prevent mosquitoes
2	M.Maheshwari M.Karthika S.Mageswari K.ShakthiLakshmi G.Sonamuthukala	Low cost biofertilizer for Village Farmers
<b>CIVIL ENGINEERING</b>		
3	P.M.Priyadarshini S. Rajaprabhu P.SanthiniPrabha K.Subhameenu	Reuse of Plastic Bottles as Low cost Construction Materials
4	L.Ramaguru S.Vignesh M. Vigneshawaran R.Manikandan S.Thirumathivanan Himanshu Kumar	Treatment of Ground Water in Kariapetti
5	Gokilavani Gowsalya Hema Devi S Padma. M	Drinking water quality issues at Sundarapandiam Village
<b>COMPUTER SCIENCE &amp; ENGINEERING</b>		
6	B.V.S.Bharghava M.Roopesh	Teaching App for Speech and Hearing Impaired Students : TASHIS
7	M.Praveenkumar R. Selvam L.Guruprasath	Blood Bank Management System
<b>ELECTRONICS AND COMMUNICATION ENGINEERING</b>		
8	G.K.Sudharvan G.Balaji V.Ajith Kumar	Innovative Dustbin for Clean India
9	Baskar .V AlagiriSamy .M. Mani Goutham Goutham S.	Smart Monitoring System for Visually Challenged Person
10	K.Arun Kumar N.Gurusamy S.AbhijitVignesh	Heart Beat Alerting System for Impaired People
<b>ELECTRICAL AND ELECTRONICS ENGINEERING</b>		

11	R.Thankaraj M.KannanBabu J.Rajadurai	Water Pollution Control Using in dye Industries
12	E.Sankar Raj S.Surya Prakash M.Venkatesh	Vehicle Sensing Barricades
<b>MECHANICAL ENGINEERING</b>		
13	S.Manikandan S.Mohan Kumar V.Gowtham Kumar J.Manoj Kumar J.JamesJebaraj	Designing A Flow Tap For Conventional Use
14	M.Selvakumar V.Sreeram A.Sridhar S.Sugan	Fabrication Of The Sewage Cleaning Machine
15	V.AnandBabu S.Ashok Kumar S.Ashokraj K.Boopathy P.Blesswin Alexander	Air Pollution And Smoke Control By Vacuum Trough Method

## 6. Problems Encountered and Resources Required

- If the department can select one common area for the process and implementation of the whole projects in their respective department, motto of the locality development will be possible.
- If it is able to link with institute outreach activity or NSS activities, the programme can be more viable in the society.
- Most of the students are not able to get permission from the local- self government and public authority for implementing their projects with community.
- Need to find out more funding opportunity than management funding with support of project guide.
- Time frame for field visit has to be monitored and strictly adhered by the department and coordinators.

## Best Practice - II

### 1. Title of the Practice

- Internal Quality Assurance Cell Metrics

### Objectives of the Practices

The primary objectives of this practice are:

- To make the faculty members engage themselves in various quality concern activities to enrich their teaching and learning skills by participating in various workshops, seminars, FDPs and conferences.
- To provide an opportunity to students to participate in various extracurricular and curricular activities. Also motivate them to receive sponsored projects and to learn the industry environment.

- To inculcate a good research environment by encouraging for more publications in reputed journals and to receive notable funded projects.
- To motivate students spirit of research in terms of publication in reputed conferences and journals.
- To motivate the departments more number of fruitful events organised with a specified target set by the departments itself.
- To enrich the quality related activities the department set a target every academic year relevant to various parameters.

### **The Context**

- KARE IQAC strongly emphasizes on high quality activities for the growth of the department. With the same focus, IQAC metrics have been formulated. The departments have been measured under four broad categories such as Faculty, Students, Research and Event Organised. Under this broad category many subcategories have been created to measure the performance of the department with respect to more quality consciousness. The metrics have been framed and updated every academic year with focus on more qualitative aspect rather than quantitative ones. In addition the IQAC in-house meeting with all the heads of departments is conducted during every quarter and the department's progress in the metrics are measured periodically. The metrics also framed separately for the administrative offices to monitor their quality progress. Also academic audit pertaining to various special courses, evaluation and examination reforms have been done in each semester of the academic year.

### **3. The Practice**

- The IQAC metrics pertaining to various departments has been started with the preparation of action plan for the academic year and the same is to be submitted to the IQAC office. Based on the discussion with the head of the departments and IQAC program coordinators the action plan gets finalised.
- By the end of every quarter the target achieved by the departments pertaining to their action plan has been discussed in detail in the in-house meeting scheduled on a particular date and the heads of departments present their need aspect and further to improve their performance in the forthcoming near future.
- At the end of each academic year the IQAC Celebration Day / Engineers Day Celebration will be conducted and during the function top three departments with high quality metrics would be felicitated with shield, certificates and mementoes. Also faculty would be facilitated with certificates, shields for showing excellent performance in various activities.
- IQAC metrics are also formulated for auditing the various administrative offices to ensure better quality service. The offices would be provided with yearly target based on their metrics and for the same action plan submitted and the progress monitored on a continuous basis.

### **4. Evidence of Success**

- It is observed that about 40–50% students opt for external projects with a tie-up in industry or a research lab.
- Every year, students' come up with innovative solutions to problems and also publish their project works in reputed conference volumes and journals.
- Faculty members have been enriched more with recent teaching and learning techniques.

A comparison is shown below on key parameters as evidence of success.

Item	2015-2016	2016-2017
FDP Attended	167	215
Seminars/Workshops	231	384
Faculty Certification	-	115
Industrial Visit	-	37
Co-Curricular Activities	472	552
Internship	18	25
Students Certification	360	386
Online Courses	-	131
Research Projects Received	9	10
Publications in Journals/Conferences	208	532
Book Chapters Published	4	12
Patent Filed	3	7
International Certification	2	6
Seminars/Workshops	72	72
Guest Lectures Delivered	96	114

***\*Provide the details in annexure (annexure need to be numbered as i, ii, iii)***

#### 7.4 Contribution to environmental awareness / protection

Green army has a broad responsibility in environmental awareness /protection.

- As an environmental awareness initiative our COE office recycles old papers instead of dumping them, through a MoU with ITC Ltd.
- To ensure judicious use of fans and lights inside and outside the class rooms and thus to minimize electricity consumption.
- To ensure litter-free environment inside the class room and corridor of the respective classroom.

Green army is also involved in solid waste management and enhancement of renewable resources

- Solid Waste Disposal Method
  - Solid wastes collected from various locations are previously transported to common waste disposal yard outside the campus through trucks.
- This method of disposal is now withdrawn. The collected waste are now composed within the campus in a dedicated composting site and converted into manure. The manure is now utilised in the institute agricultural land attached with Agricultural Engineering and Horticulture departments.
- Enhancement of renewable resources
  1. To enhance the use of renewable energy sources in addition to street lights, a new 100 KW solar power plant is under installation at library building. This will supply 500 units daily for 10 months a year. The CO2 emission saved would be as follows.
  2. Units generated annually for 10 months are 150000 Units.
  3. Emission factor recorded is 1 tCO2/MWh (as per 2016 data base by CEA, Govt. Of India).



4. CO<sub>2</sub> emission reduced/year is 150 tonne.

7.5 Whether environmental audit was conducted?      Yes      ☒      No      ☐

7.6 Any other relevant information the institution wishes to add. (For example SWOT Analysis)

### **SWOC Analysis of KARE**

KARE is a unique institution in diverse respects. It is built with a mission to reach out not only to the economically and socially backward children of the Virudhunagar District but, also to the other parts of the nation

### **STRENGTH**

- Fully CBCS system to be introduced for first year students from 2017-18.
- Practical skills required to meet the industry is achieved through special courses like theory with practical and one credit courses.
- About 40% of the faculty members are PhD holders with good exposure and experience.
- Active collaboration with industries and overseas institutions.
- In-house innovative metric system for quality assurance effectively implemented for progress in all the departments.
- Inculcating social responsibility in students through mandatory community service projects in the curriculum.
- Very good infrastructure & research facilities enabling quality research by faculty members as reflected by h-index of 47 by institute and continue to be one of the top 50 institutions in Scimago Institutions Rankings (SIR).
- KARE is ranked by NIRF in the 101-150 ranking bound.
- Strongly active Innovation and Entrepreneurship Development Center (IEDC) in the campus.
- Offering high quality of higher education in this remote region. KARE has earned the goodwill and community support of the surrounding regions.

### **WEAKNESS**

- Lack of large industrial manufacturing or IT companies in this district and nearby districts hamper attractiveness compared to other regions of Tamil Nadu for example Chennai, Coimbatore or Trichy.

### **OPPORTUNITIES**

- Faculty members of KARE have opportunity to act as post- doctoral researchers/visiting faculty due to more MoUs signed with abroad university.
- Being situated in rural region KARE can contribute towards regional development by devising innovative rural technology in the available expertise and facility inside the campus.

### **CHALLENGES**

- Being a growing institution its ability to attract more students to its Post Graduate Programmes is still need to be pursued.

- Research is a specialized field and its relevance aligned to International Development need to be constantly invested in terms of special facilities, equipment, software and hardware facilities. Competent research faculty has high mobility and their availability is constrained due to regional disadvantage.
- Location disadvantage for establishing currently trending courses will be tackled by establishing innovative policies.

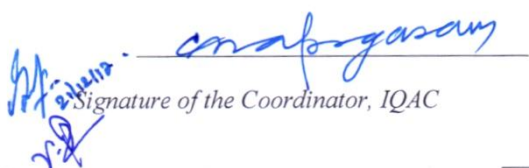


### 8. Plans of institution for next year

- Metric Formulation by Administrative officers and Administrative auditing.
- Auditing of special courses.
- Promotion of IEDC Activities.
- Formation of School concept and its implementation.
- Augmentation of infrastructure facilities.
- Strengthening research centers.

Name Dr. C. SIYAPRAGASAM.

Name Dr. S. SARAVANASANKAR.

  
Signature of the Coordinator, IQAC

  
Signature of the Chairperson, IQAC

\*\*\*

## **Annexure I**

### **Abbreviations:**

CAS	-	Career Advanced Scheme
CAT	-	Common Admission Test
CBCS	-	Choice Based Credit System
CE	-	Centre for Excellence
COP	-	Career Oriented Programme
CPE	-	College with Potential for Excellence
DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence
UPSC	-	Union Public Service Commission

## Annexure II

### ACADEMIC CALENDAR FOR THE YEAR 2016-2017

S.No	Month	Week	Activity
1	June 2016	I	(a) Submission of department activity calendar (b) Department plan for quarter – I to IV (2016 – 2017)
		II	One day national conference on “ <b>Quality Assurance in Higher Education’s- Novel Approaches</b> ”
		III	Conduction of fourth quarter IQAC meeting for academic year 2015-16 and release of department wise ranking for 2015-16
		IV	Freshers faculty training phase-I
			NAAC criteriawise Audit
		V	(a) Release of Annual report for academic year 2015-16 (b) Release of IQAC software.
2	July 2016	I	Formulation and submission of students council members list to the IQAC
		II	Faculty training in IQAC software for online data submission.
		III	Preparation of AQAR for academic year 2015-16
			Feedback collection from students and analysis– phase I (ODD Semester)
		IV	Administrative Audit phase-I
			First IQAC Cell PCs review meeting
			Freshers faculty training phase-II
3	August 2016	I	Auditing of Sessional Exam- I Question Papers
		II	Second students council members meeting
		III	Submission of IQAC quality parameters to IQAC by all the departments for assessment of performance in the first quarter
		IV	In house meeting for the first quarter
4	September	I	Administrative audit phase-II

	2016	II	First Quarter IQAC meeting
		III	Compilation of alumni feedback
			IQAC celebration day
		IV	Auditing of Sessional Exam- II Question Paper
5	October 2016	I	Administrative Audit phase-III
		II	Feedback collection from students and analysis– phase II
		III	Academic Audit through Dean (Academic) office
		IV	
6	November 2016	I	Feedback collection from teaching staff and analysis
		II	Feedback collection from non teaching staff and analysis
		III	Second IQAC Cell PCs review meeting
		IV	Submission of IQAC quality parameters to IQAC by all the departments for assessment of performance in the second quarter
7	December 2016	I	In house meeting for the second quarter
		II	Second Quarter IQAC meeting
		III	Administrative Audit phase-IV
		IV	Feedback collection from students and analysis– phase I (Even Semester)
8	January 2017	I	Auditing of Sessional Exam-I Question paper
		II	Department Activity calendar audit for Engineering departments
		III	
		IV	Department Activity calendar audit for Non Engineering departments
9	February 2017	I	Department Activity calendar audit for Non Engineering departments
		II	Administrative Audit phase-V
		III	Third IQAC Cell PCs review meeting

		IV	Auditing of Sessional Exam-II Question paper
10	March 2017	I	Submission of IQAC quality parameters to IQAC by all the departments for assessment of performance in the third quarter
		II	In house meeting for the third quarter
		III	Workshop on Teaching, / Learning Quality Improvement.
		IV	Third Quarter IQAC meeting
11	April 2017	I	Feedback collection from students and analysis– phase II
		II	Fourth IQAC Cell PCs review meeting
		III & IV	Self Appraisal Review for faculty member
12	May 2017	I	
		II	Submission of IQAC quality parameters to IQAC by all the departments for assessment of performance in the fourth quarter
		III	In house meeting for the fourth quarter
		IV	Fourth Quarter IQAC meeting

\*\*\*\*\*