

*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

AQAR for the year (for example 2014-15)

2015-16

#### 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

Srivilliputhur

State

Tamilnadu

Pin Code

626126

Institution e-mail address

info@kalasalingam.ac.in

Contact Nos.

04563-289042

Name of the Head of the Institution:

Tel. No. with STD Code:

Mobile:

Name of the IQAC Co-ordinator:

Mobile:

IQAC e-mail address:

1.3 NAAC Track ID (For ex. MHC0GN 18879)

**OR**

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)

1.5 Website address:

1.6 Web-link of the AQAR:

### 1.7 Accreditation Details

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

1.8 Date of Establishment of IQAC: DD/MM/YYYY

26/06/2010

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))

- i. AQAR 2012-13 submitted to NAAC on 15-07-2012
- ii. AQAR 2013-14 submitted to NAAC on 20-11-2013
- iii. AQAR 2014-15 submitted to NAAC on 30-12-2014

1.10 Institutional Status

University State  Central  Deemed  Private

Affiliated College Yes  No

Constituent College Yes  No

Autonomous college of UGC Yes  No

Regulatory Agency approved Institution Yes  No

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education  Men  Women

Urban  Rural  Tribal

Financial Status Grant-in-aid  UGC 2(f)  UGC 12B

Grant-in-aid + Self Financing  Totally Self-financing

1.11 Type of Faculty/Programme

Arts  Science  Commerce  Law  PEI (Phys Edu)

TEI (Edu)  Engineering  Health Science  Management

Others (Specify)

. B.Ed (Special Education), Architechture

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

University with Potential for Excellence  UGC-CPE

DST Star Scheme  UGC-CE

UGC-Special Assistance Programme  DST-FIST

UGC-Innovative PG programmes  Any other (*Specify*)

UGC-COP Programmes

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

2.1 No. of Teachers

2.2 No. of Administrative/Technical staff

2.3 No. of students

2.4 No. of Management representatives

2.5 No. of Alumni

2. 6 No. of any other stakeholder and  
Community representatives

2.7 No. of Employers/ Industrialists

2.8 No. of other External Experts

2.9 Total No. of members

2.10 No. of IQAC meetings held

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.  International  National  State  Institution Level

(ii) Themes

- Effective faculty advisorship and quality metrics
- Question paper preparation in line with blooms taxonomy categorization
- National level workshop on assessment and accreditation
- Outcome Assessment Procedure Implemented in KLU software
- Outcome based Education & Blooms taxonomy

2.14 Significant Activities and contributions made by IQAC

- Induction and Orientation session was conducted for newly appointed faculty members. The Roles and Responsibilities of IQAC helps them to orient themselves with the IQAC activities.
- Based on inputs from IQAC, the office of COE (Controller of Examination) has enriched the course work log book by introduction of Attendance, Assessment and Audit (AAA) log book for course delivery monitoring and recording. It helps the faculty members to maintain all the activities, mapping between PEO's, PO's and documents in a single book and made monitoring very simple. It also helps for quality check and monitoring purpose.
- IQAC initiated the department ranking based on the IQAC quality parameter scores and best three departments are recognized every year.

- IQAC initiated the practice of preparing department action plan for 2015-16 by the departments and meetings. These meetings help the departments to be consistent with targets fixed for the entire year and make them to work with a clear goals and objectives.
- IQAC initiated Four Quarterly meetings with department IQAC members and HOD's every year.
- Internal Audit has been conducted every year and feedback is given to the departments for improvement. Departments act upon the feedback points given to the internal audit.
- IQAC has come up with a qualitatively audited version of UGC-API and it has been implemented successfully.

#### 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
Dissemination of information on campus activities by release of IQAC newsletter	The newsletter has been released every quarter(once in three months) and disbursed to all the students by post
Quality parameters assessment metrics for evaluation of departments and providing rewards for the department	Departments were given rating, the first three ranks achieved by the departments were rewarded with rolling trophy, shields and certificates
Motivation of students to create awareness about the parameters related to them	Through IQAC students council meeting the students attended in extracurricular and curricular activities to be increased in the academic year
Organize orientation programmes for faculty members regarding outcome based education	All the department faculty members are given orientation through internal and external resource persons
NBA Accreditation process for B.Tech, Biotechnology, Computer science and Engineering and Electronics and Communication Engineering	All the three programmes were accredited by NBA (Tier-I)
Feedback analysis of outgoing	Has been done and action taken on that

\* 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	--	15	--
PG	37	07	44	5
UG	20	08	28	17
PG Diploma	--	--	-	--
Advanced Diploma	--	--	-	--
Diploma	05	--	05	--
Certificate	05	--	05	--
Others	--	5	5	--
<b>Total</b>	<b>82</b>	<b>20</b>	<b>102</b>	<b>22</b>
Interdisciplinary	--	05	05	--
Innovative	--	09	09	--

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

- Choice based credit system – the student has the freedom to choose the courses of his/her interest – nearly 40 percent of the syllabus

##### **Elective Schemes:**

- Professional Major Electives
- Professional Minor Electives
- Free Electives
- Self Study Electives
- Humanities Electives
- Full semester project for final year B.Tech students in Industry and Research Laboratories.
- Transparent evaluation system. Early publication of results (within 10 days).
- Summer term courses to clear arrear subjects.
- Semester abroad scheme - MoU with more than 17 foreign Universities.
- Exposure to multi-domain knowledge through free elective and minor elective courses.
- Personality Development, Skill development programs are mandatory for the students to make them as all round engineers – Non CGPA credits.



- Faculty advisory system to the students to cope-up with the academic system for the individual's betterment.

**Provision of flexible facilities is:**

- Substitution of one elective by another elective.
- Class committee meeting of every class of the B.Tech programme is regularly conducted.
- Make-up examination for the students who miss the examination due to genuine reasons.
- Students exercising their options for subject teachers.
- Option of performing additional courses for Honor's degree.
- Choosing of elective from PG programme (Honors)
- 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 component are included
- Ability to switch to another program

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	Undergraduate programs - 28 Postgraduate programs - 44
Trimester	NIL
Annual	NIL

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, there will be minor revision and updates. However, the syllabus is been updated once in every three year

1	All B.Tech Programs	<ul style="list-style-type: none"> <li>• Community service project, Laboratory with mini projects and Theory with practical component are included</li> <li>• Hindi Language Skills included in Non CGPA</li> <li>• Assignment method and Grading of Student are revised</li> <li>• Minor CGPA revision for first year class</li> <li>• Non – CGPA credits revised</li> <li>• Evaluation pattern changed</li> <li>• Online and One Credit courses are introduced</li> <li>• Soft Skills introduced</li> </ul>
2	B.Tech CSE	New Electives included: Mobile Application And Development, Cloud Computing, Big Data Analysis
3	M.C.A	Revision to accommodate lateral entry students

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

New Departments introduced:

- Bio Medical Engineering
- Catering Science and Hotel Management
- Visual Communication
- Commerce

New Centre Introduced:

- In Kalasalingam University (KARE), The ‘Water and Environmental Research Group’ of the Department of Civil Engineering is engaged in active research for the past 7 years. Recognizing the need for multi-disciplinary approach to the solutions of water and environmental engineering, this research group has been conceived into a research centre from May 2015. This emerging centre is aimed to undertake aid, promote and coordinate systematic and scientific work in all aspects of hydrology, water resources engineering and waste water engineering. In the long run, the centre wishes to offer certificate courses and full fledged PG programmes.
- Kalasalingam University (KARE) has set up the state of art with the INTEL Intelligent Systems Laboratory, in association with INTEL and Foundation for Innovation and Collaborative Education Pvt Ltd (FICE). The laboratory was opened on 08<sup>th</sup> April 2016. INTEL intelligent system laboratory is equipped with INTEL Galileo board and the necessary peripherals. The laboratory is focussed to train the students on embedded systems and Internet of Things (IOT). Students can utilize the facilities in the laboratory for their academic project work and to develop innovative solutions for the real world problems. Setting up this lab is one of the major milestone in the history of KLU.
- Kalasalingam University (KARE) has made a set up of Embedded Systems and Robotics lab on August 20 and 21, 2015. After successful completion of task based training from e-yantra, IIT Bombay with Class B award, the Embedded systems and Robotics lab was established in KARE. The lab is partially supported by IIT Bombay. By signing a Memorandum of Understanding (MoU) with e-Yantra Lab Setup Initiative (eLSI)-IIT Bombay, the lab equipments were purchased in the cost of Rs. 3,39,482 (Three lakhs thirty nine thousand four hundred and eighty two only).

- Kalasalingam University (KARE) has made a set up of Photography lab and Mini-cine hall on September 10<sup>th</sup> 2015 and October 20<sup>th</sup> 2015. The Mini cine Hall is focussed for film appreciation and to understand film culture. The Photography lab is equipped with Cannon 7D Mark II professional camera, high quality lenses and Indoor lighting setup. The Mini Cine Hall was constructed for 1,16,000(One Lakhs and sixteen thousand rupees) and the photography lab was established for 4,92,000(Four Lakhs and ninety two thousand rupees)
- Kalasalingam University (KARE) has made a setup for Food Production Lab, Food and Service Lab, Accommodation and operations lab on September 07<sup>th</sup> 2015, for a total cost of 3,50,000(Three Lakhs and fifty thousand). These laboratories are equipped with top quality equipments, refrigerator, ovens and tandoori pots which helps the students to learn latest hygiene practises.

## Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
413	320	51	42	-

2.2 No. of permanent faculty with Ph.D.

141
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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	-	08	-	12	-	-	-	142	-

2.4 No. of Guest and Visiting faculty and Temporary faculty

49
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2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	18	13	01
Presented papers	114	40	-
Resource Persons	08	04	-

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

- Software-based assignments
- Regular visit to Industries
- Conducting the mini project contest
- Arranging the in plant training to the students in the core companies
- Organizing seminars / workshops / training programmes for students

- Inviting resource persons from Industries / Institutions for guest lectures.
- Arranging demonstration from leading core companies from time to time.
- Community service project
- Laboratory with mini project
- Theory with practical component
- Soft skill course made as CGPA course
- Good number of online courses like (NPTEL, COURSEERA, and MIT EDX) is offered for successful completion of the programmes.
- One credit courses are offered by Industrial professional /Scientists from Research laboratory courses on the latest topics

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

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

- a) **Pre-Examination process are automated through software**
  - a. Preparation examination timetable for
    - i. Sessional Examination – I, II, III
    - ii. End Semester Examinations
    - iii. Makeup examinations
    - iv. Arrear Examinations
  - b. Preparation for student seating arrangement
  - c. Preparation of student attendance sheet
  - d. Preparation of invigilation duty for the faculty members
  - e. Student can see this seating position for examination in their SIS login
  - f. Android app developed for students SIS. (app is available in good store)
- b) **Two level security system to ensure the quality of the question paper.**
  - a. Head of the departments and Course Coordinators are asked to check the quality of internal test questions before sending the question papers for photo copying. The question papers are improved based on the comments from Head of the departments which has resulted in reasonably tough question papers.
- c) **External question paper** - Question paper for the end semester will be call for from external experts.
- d) **External Question paper Auditing** – End Semester question papers are audited by external academic auditors and also internal senior faculties. Based on the feedback given, faculty members ask detailed question. Students are made to study the subjects in detail so that they become more knowledgeable. Application oriented questions make students to gain knowledge in design.
- e) Setting of Outcome based (Bloom’s Taxonomy) Question paper
- f) Implementation of Outcome/Program based mark entry and analysis in Easy Software
- g) Implementation of online examinations for soft skills
- h) Various innovative assessment methodology where initiated.(Online Quiz, mini project, Theory with practical components, Practical with mini projects, open book)
- i) Dummy numbering process – Answer sheets are encoded.
- j) External valuation for End Semester Examinations
- k) Returning the answer papers within 3 days from the last date of periodical test.

- l) Preparation of Test Performance Report for analyzing test results and immediate corrective actions.
- m) Information to the parents about the performance of their wards with the use of Parents Cornor online web application (PACO), where parents can monitor their ward attendance, marks and grades.
- n) Provision for improvement tests to students for genuine cases. It helps the slow learners to build their confidence.
- o) Automated calculation of internal marks through software
- p) Statement of grades issued with students photographs
- q) CCTV Security system in COE office
- r) Issuing the transcript on-demand, immediately

2.9 No. of faculty members involved in curriculum

Restructuring/revision/syllabus development  
as member of Board of Study/Faculty/  
Curriculum Development workshop

413

- (i) All the faculty members are involved in curriculum restructuring / syllabus updation
- (ii) Two academic experts from various institutes and two industrial experts from industries are participating and giving their suggestions during the BoS (Board of studies) meeting for the curriculum revision

2.10 Average percentage of attendance of students

94%

2.11 Course/Programme wise distribution of pass percentage:

#### B. Tech programme

Title of the Programme	Batch	Total no. of students appeared	Division			
			Honors %	Distinction %	First Class %	Pass %
AUTOUG	2012	18	0	5.55	77.77	0
BIOUG	2012	43	11.62	9.30	51.16	0
CIVUG	2012	96	9.37	3.12	64.58	2.08
CSEUG	2012	110	11.81	3.63	70	1.81
ECEUG	2012	101	13.86	4.95	66.33	2.97
EEEUG	2012	44	6.81	9.09	70.45	0
EIEUG	2012	9	11.11	0	66.66	0
ICTUG	2012	25	4	4	64	0
INFOUG	2012	26	15.38	0	69.23	0
MANUUG	2012	10	0	0	70	0

MECHUG	2012	193	3.10	7.25	70.98	1.55
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### PG Programme

Title of the Programme	Batch	Total no. of students appeared	Division			
			Honors %	Distinction %	First Class %	Pass %
BIOPG	2014	3	0	100	0	0
CIVCE	2014	10	0	60	40	0
CIVTP	2014	1	0	100	0	0
CSEIAS	2014	1	0	100	0	0
CSENW	2014	3	0	33.33	33.33	0
CSEPG	2014	8	0	50	50	0
CSESE	2014	1	0	100	0	0
ECEDCN	2014	2	0	100	0	0
ECEVLSI	2014	2	0	50	50	0
EEEEEST	2014	1	0	0	100	0
EEEPED	2014	1	0	100	0	0
EEEPSE	2014	2	0	100	0	0
EIEPG	2014	3	0	100	0	0
INFOPG	2014	5	0	80	20	0
MBAAS	2014	7	0	28.57	57.14	0
MBAPG	2014	67	0	2.98	68.65	2.98
MECHISE	2014	17	0	52.94	47.05	0
MECHTE	2014	2	0	50	50	0
MSCCT	2014	2	0	50	0	0
MCAPG	2013	29	0	13.79	72.41	3.44
ENG_MPHIL	2015	14	0	28.57	71.42	0
MAT_MPHIL	2015	10	0	20	40	20

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

- Developed a system for conscious, consistent and catalytic improvement in the overall performance of the institution.
- IQAC has implemented student feedback twice a semester
- Internal audit of quality parameter to ensure Blooms Taxonomy is implemented, followed by workshop on Blooms Taxonomy through CLT(Centre for Learning Technology) to all the faculties
- Recommended remedial class for slow learners.
- Organized guest lecture, workshop, seminars and conference to interact with the academicians and industrialist on the specific advancements to bridge the state of art in technological development.
- Tutorial classes are well practised.
- Projects aimed at product based/ research based/ Patent.

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	280
UGC – Faculty Improvement Programme	124
HRD programmes	140
Orientation programmes	103
Faculty exchange programme	04
Staff training conducted by the university	359
Staff training conducted by other institutions	02
Summer / Winter schools, Workshops, etc.	225
Others	-

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	214	-	28	-
Technical Staff	142	-	17	-

### 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
- Initiative by KLU management to establish International Research Centre
- Promoting faculty research based electives for students
- PDA performance appraisal
- IQAC has implemented quality assurance system to help faculty members to attend good quality seminars and workshops.
- Library resources are constantly upgraded for research. In this occasion, large number of reference books and Journals were added during the academic year 2015-2016.
- Special initiatives through International Research Centre (IRC) to encourage faculty members to submit project proposals.
- Faculty members are encouraged by providing credits in appraisal system for research papers and publications in journals
- Research awards under three categories has been initiated to inculcate more quality research, publications.
- Organized two days workshop on ” Research methodology (How to do good PhD/How do write paper/thesis in Latex)” during 9<sup>th</sup> and 10<sup>th</sup> February 2016.
- Organized sensitizing program “Continuing education Programme for faculty members” on 20<sup>th</sup> June 2016.

##### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	5	14 (including 3 FIST)	2	26
Outlay in Rs. Lakhs	94.81	424.47	45.83	1305.45

##### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	3	5	1	1
Outlay in Rs. Lakhs	4.5	2.24	0.3	5

##### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	155	2	-
Non-Peer Review Journals	21	3	-
e-Journals	4	0	-
Conference proceedings	98	26	-



3.5 Details on Impact factor of publications:

Range  Average  h-index  Nos. in SCOPUS

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	Received
Major projects	3 Years	DST,SERB,CSIR MOEF	166.17	104.47
Minor Projects	1-2 Years	DST-IEDC	2.0	2.0
Interdisciplinary Projects	-	-	-	-
Industry sponsored	-	-	-	-
Projects sponsored by the University/ College	-	-	-	-
Students research projects (other than compulsory by the University)	-	-	-	-
Any other(Specify)	-	-	-	-
Total				

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

Level	International	National	State	University	College
Number	1	7	-	-	-

Organised by the Institution

Sponsoring agencies	-	-	-	-	-
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3.12 No. of faculty served as experts, chairpersons or resource persons

3.13 No. of collaborations International  National  Any other

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs:

From funding agency	<input type="text" value="73,00,000"/>
From Management of University/College	<input type="text" value="9,17,44,379"/>
Total	<input type="text" value="9,90,44,379"/>

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	5
	Granted	NIL
International	Applied	NIL
	Granted	
Commercialised	Applied	NIL
	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
37	13	14	-	10	-	-

3.18 No. of faculty from the Institution Who are Ph. D. Guides?   
And students registered under them

3.19 No. of Ph.D. awarded by faculty from the Institution

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

JRF  SRF  Project Fellows  Any other(URF &PDF)

3.21 No. of students Participated in NSS events:

University level  State level   
National level  International level

3.22 No. of students participated in NCC events:

University level  State level   
National level  International level

3.23 No. of Awards won in NSS:

University level	6	State level	-
National level	-	International level	-

3.24 No. of Awards won in NCC:

University level	-	State level	52
National level	-	International level	-

3.25 No. of Extension activities organized

University forum	16	College forum	-		
NCC	11	NSS	71	Any other	23

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

- KLU NSS organized tree plantation at “Vallalar Illam” a child orphanage near srivilliputhur on 19<sup>th</sup> July 2015.
- KLU-NSS organized a rally awareness program and temple cleaning process for “Clean India Project” at and T.Kallupatti on 27<sup>th</sup> August 2015
- A four day training programme for school teachers for improving their teaching skills in maths and science subjects was organized from 20<sup>th</sup> to 29<sup>th</sup> August 2015. Nearly 600 teachers from government and aided schools of virudhunagar district got benefited through this program
- In order to improve the pass percentage and to score good marks in public examinations, training program for slow learners was conducted on 6<sup>th</sup> October 2015. Nearly 1000 students of government schools in srivilliputthur district got benefited by this programme
- KLU- NSS has received the “Best Motivator Award” at Meenakshi mission hospital on 1st October 2015.
- KLU NSS has organized YOUTH AWAKENING DAY (DR.A.P.J Abdulkalam’s Birthday) in melagopalapuram and meenakshipuram government schools near srivilliputhur in order to create awareness among students.
- To identify the special talents of school students of virudhunagar revenue district, a cultural festival (Kalai vizha) was conducted on 13<sup>th</sup> October 2015. Nearly 200 students have exhibited their talents in various arts and crafts
- A meeting of Headmasters of various government schools of virudhunagar district was conducted on 19<sup>th</sup> October 2015 to discuss the strategies for getting 100% results. Nearly 100 Head masters of various government schools of virudhunagar district have participated in this programme.
- KLU NSS organized International day of persons with disabilities from SDET Child orphanage chookulam patti on 4<sup>th</sup> December 2015.

- NSS Volunteers of actively participated in Flood Relief Medical Camp during 9<sup>th</sup> to 11<sup>th</sup> January 2016 at Karrikupuram, Cuddalore.
- KLU NSS Volunteers has organized a state level workshop on virudhunagar on 23<sup>rd</sup> January 2016.
- KLU NSS has organized a 7 days special camp on Ammapatti, Natham patti, Poovani, Meenakshi puram, valayapatti, Chokklampatti during 07-05-2016 to 13-5-2016
- Dengue fever prevention and control awareness, campus cleaning program was conducted at Tamilnadu Agricultural University (Cotton Research Centre), Srivillipudur during 26<sup>th</sup> May 2016.

#### 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	-	-	100Acres
Class rooms	142	04	-	146
Laboratories	102	17	-	119
Seminar Halls	9	7	-	16
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	114	12	-	126
Value of the equipment purchased during the year (Rs. in Lakhs)	415.7	34.18	-	449.88
Others	-	-	-	-

##### 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 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'15)		Newly Added (After June'15)		Total	
	No.	Value	No.	Value	No.	Value
Textbooks	67431	2,02,05,098.14	4535	22,42,156.48	71966	2,24,47,254.62

Reference Books	4555	1,53,91,271.62	265	5,05,254.43	4820	1,58,96,526.05
E-Books	971	9,88,970.00	-	-	971	9,88,970.00
Journals	220 (For 2015)	517479.00	220 Existing)	589020.00	236	6,26,620.00
			16 (New)	37,600.00		
E-Journals & Digital Database	267 (For 2015)	6,57,094.00	267(Existing)	7,47,185.00	285	7,47,185.00
			18 (New)	Online free for print subscription		
CD, Video etc.	5485	1,32,397.00	742	Cost included in the print books*	6227	1,32,397.00

#### 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	1881	17	146 Mbps	2	1	-	15	-
Added	199	8	24 Mbps	1	1	-	-	-
Total	2080	25	170 Mbps	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.)

Kalasalingam University has a wide networking facility connecting all the academic blocks and hostels through optical fibres. Kalasalingam university campus is 24/7 WiFi enabled and all the academic blocks and hostels are installed with access points for Wi-Fi access. Internet facilities is available on 24/7 basis through 170 Mbps internet bandwidth. Kalasalingam University is also connected to National Knowledge Network (NKN) through 1MBPS connectivity.

Kalasalingam University has Signed 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 University Departments of Kalasalingam University 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 Centre, Kalasalingam University and the Colleges free of cost.

4.6 Amount spent on maintenance in lakhs:

i) ICT	19579135
ii) Campus Infrastructure and facilities	25, 53, 05,045
iii) Equipments	3, 76, 81,439
iv) Others	1, 64, 18,056
<b>Total:</b>	<b>32, 89, 83,675</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

- The university 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. Alumnis' are also invited for guest lecture and symposium.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
4246	497	96	--

(b) No. of students outside the state

UG	PG
575	47

(c) No. of international students

NIL
-----

Men	No	%	Women	No	%
	3314	68.4		1525	31.5

Last Year(2014)						This Year(2015)					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
60	75	1	751	--	887	562	178	5	1526	--	2271

Demand ratio = 1.20:1      Dropout % = 11.48%

#### 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 computer systems were increased in the E-library section.
- For accessing the media resources such CD/DVD, Audio cassettes, video cassettes, VCDs a Media Resource Centre (MRC) has been created.
- A separate resource cell has been created with 1250 books for competitive examinations conducted by UPSC, TNPSC, SSC, Railway, and Banking Sector. Also resources available for GATE, GMAT, GRE, TOEFL etc.
- Well furnished video conferencing facility has been created
- 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

#### Guidance for coaching classes

- KARE has set-up an IAS Training Academy 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 provided so that the students can compete with many government undertaking organizations.
- NAC Tech and AMCAT training helps in enhancing their aptitude skills.
- Mock interview sessions and group discussions are conducted frequently for final year students to hone their communication skills.

The outcome of these 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 provided to the students to take up the competitive examinations like GATE, GRE, etc., through well experienced teaching faculty. KARE also provides opportunities for students to undertake industrial training and project work in research centres, government and private organizations. The University curriculum is designed to impart effective communication skill in English for the Engineering graduates.

### Business English Certification:

- Business English Certification exam training is regularly given to our students. A total of 449 students cleared BEC certification.
- Special training are offered for students to obtain Business English Certification (BEC) both for Preliminary, Vantage and Higher.

### International Certification:

- IBM Certifications offered by IBM Centre of Excellence CISCO, Oracle and Microsoft certifications 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 at the campus which enables our students globally competent

### MOOC:

- Online MOOC courses offered by leading universities around the world and awards credits to students who have successfully completed the online courses
- KARE is updating the curriculum and syllabus whenever there is a need. In the recent initiative, 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) are adopted

Number of students benefited

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

NET	<input type="text" value="-"/>	SET/SLET	<input type="text" value="-"/>	GATE	<input type="text" value="2"/>	CAT	<input type="text" value=""/>
IAS/IPS etc	<input type="text" value="-"/>	State PSC	<input type="text" value="-"/>	UPSC	<input type="text" value="-"/>	Others	<input type="text" value="64"/>

### 5.6 Details of student counselling and career guidance

- For every 20 – 25 students one faculty is nominated as ‘Faculty Advisor’. He will be the local guardian for the student takes care of his personal and academic grievances.
- Continuous monitoring of students performance through FAS.
- Road map for the improvement of the students’ academic performance.
- I year program on yoga for the first year students in line with the regular academic activity.
- Really deserving students may be given counselling by the external expert
- Faculty advisors meeting and counselling for the students in a frequency of one time in a day to address their grievances.
- All the students in the university are benefited.



## 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
82	940	834	44

## 5.8 Details of gender sensitization programmes

- KARE has organized Women's day Celebration on 8th March 2015. In the occasion of Women's Day celebration parachute training was given to girls.

## 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

Cultural: State/ University level  National level  International level

## 5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	150	10,75,200
Financial support from government	169	15,90,300
Financial support from other sources	-	-
Number of students who received International/ National recognitions	11	79,200

## 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

128

5.13 Major grievances of students (if any) redressed:

Based on the suggestions from the students, the hostels are renovated with a cost of Fourteen Crores.

## **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)
- SSMS-(Student SMS)
- FIS –(Faculty Information System)

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

6.3.1 Curriculum Development

Engineering programs require comprehensive and flexible curriculum that provide the student with adequate knowledge for the present context. It involves mechanisms to read trends (local, regional and global) and understand the dynamics that occur in the relationship among industry, society and academia on the basis of the identification of needs, shortages and demands of the communities.

This requires the development of three core competences:

- 1) Identify and understand complex phenomena or behaviour.
- 2) Formulate problems including managing uncertainty and nonlinear processes.
- 3) Solve engineering problems.

It requires from the engineer, a capability to adapt changes in the globalized world, to the rapid advancement of science & technology and ambiguous/unpredictable open work forced conditions.

The curriculum of KARE is designed to meet on the challenges of contemporary society and its complexity. The features of the KLU academic system are,

- **Choice based credit system** – the student has the freedom to choose the courses of his/her interest
- **Theory with practical component** - For the theory subjects which are not having the allied laboratory course, practical component are included in the course
- **Laboratory Courses with mini 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.
- **One Credit Courses** - The students will get an opportunity to attend the one-credit courses offered by the experts from industries or Scientists from research laboratories or Professors from abroad Universities.
- **Online Courses** - Further students can take the on-line courses offered by the universities abroad /NPTEL.

#### 6.3.2 Teaching and Learning

- Teaching through Information and Communication Technologies (ICT)
- Competency based approach learning.
- In addition to these, KARE has introduced a series of community service projects for the students to undergo them with an idea of giving them an experience of social issues.

#### 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 collected from external experts
- More than 95% of answer Booklet evaluated from external examiners
- Around 25% of papers – double valuations are done.
- Post academic audit processes are carried out from the external experts

#### 6.3.4 Research and Development

- All Research papers to be communicated for possible publication are checked by ‘iThenticate’ software for similarity index and it is ensured that the similarity index is less than 20%.
- The university is encouraging full time research scholars by providing University Research Fellowship (Rs.12000 per month)
- The university insists minimum of three publications in SCOPUS indexed journals with at least one in SCI journal with Impact factor for thesis submission.

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

- **E-Library** – For accessing the E-resources subscribed in our institutions number of computer systems is increased in the E-library section.
- **Media Resource Centre(MRC)** – For accessing the media resources such as CD,DVD, Audio Cassettes, Video Cassettes, VCDs etc., a Media Resource cell has been created.
- **Resource Cell for competitive examination** – A Separate resource cell has been created with 1200 books for competitive examinations conducted by UPSC, TNPSC, SSC, RRB, Banking. Also resources available for GATE, GMAT, GRE, TOEFL etc.
- **Video Conferencing Facility** – Well furnished video conferencing facility has been created
- 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 examination 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 are adequate number of teaching and non teaching staffs for smooth conduct of university events. Also KARE has provisions to improve existing human resources.

- A well laid policy is handled for staff recruitment.
- Various In-house faculty development programs have been conducted.
- Academic achievements are well recognized and awarded every year on 'Engineers day' by the department of IQAC.
- Regular activities are monitored and suggestions are given for improvements
- Faculty members are encouraged for Industrial consultation
- Faculty members are motivated to attend reputed conferences, seminars, workshops and FDPs etc through vigorous quality measures.
- Publication in reputed indexed journals by the faculty members are specially recognized.

#### 6.3.7 Faculty and Staff recruitment

KARE calls for various 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 has both internal and external experts. The recruitment process includes written test, short lecture and personal interview. The candidates were selected based on their attitude towards teaching-learning, communication skills and professional expertness.

To create a comfort zone, 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 departments. 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 an 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 done.

#### 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 through KARE official website. Advertisement through online mode is implemented.

#### 6.4 Welfare schemes for

Teaching	CL, Medical leave and Maternity leave, PF
Non teaching	CL, Medical leave (except PF), Insurance and pension scheme, ESI and PF.
Students	Educational loan facilities by bank MOUs

#### 6.5 Total corpus fund generated

2,43,00,55,297

6.6 Whether annual financial audit has been done    Yes     No

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

Audit type	External		Internal	
	Yes / No	Agency	Yes / No	Authority
Academic	NO	---	Yes	Auditing committee is approved by Dean Academic.
Administrative	NO	---	Yes	Auditing committee is approved by Dean IQAC.

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

For UG Programmes    Yes     No

For PG Programmes    Yes     No

#### 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 mark entry and analysis in Easy Software.
2. Implementation of online examinations for soft skills
3. Various innovative assessment methodology where initiated.(Online Quiz, mini project, Theory with practical components, Practical with mini projects, open book)

4. Schedule of examinations and academic calendar and other information related to the conduct of examinations are published in the university website.
5. Preparing examination schedule for end semester examinations with for both theory and laboratory courses one month in advance (in discussion with the department)
6. Preparing
  - a. Seating arrangements prior to the exams
  - b. The attendance sheet
  - c. Invigilator schedule
7. Collecting the panel of examiners for question paper setting and Evaluation
8. Question paper scrutiny by a team of external faculty members from reputed institutions
9. Remuneration, TA and DA to External examiners for valuation
10. Centralized End Semester Examinations
11. Restricted access to COE office ensures the discretion in data storage and handling – CCTV Camera installed
12. Uninterrupted Power supply
13. Good Printing and reprographic facilities
14. 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 university.

**Activities and Support from the Alumni Association (2015-2016)**

Alumni association creates opportunities of alumni with the current students, which helps them to be upgraded with the current and emerging trends in their field of specialisation. Alumni Meet is conducted annually for alumni members to provide an opportunity to cherish their Alma mater and to develop good rapport with the college.

**Guest lecture:**

- Guest lecture and department inaugural function was held on 17<sup>th</sup> July 2015. The resource person for the programme was Mr. T. Arunprakash, Technologist, CTS, Chennai.
- Guest lecture on “Role of Instrumentation in industries” was organized on 14<sup>th</sup> August 2015, The Alumni resource person for the programme was Mr. Arumugaperumal (1995), the Institution of Civil Engineers ( India).
- Guest lecturer on “Recent trends on self compacting concrete” was organized for III year civil students. The Alumni Guest for this program was Mr. Sudeesh Rajendran (1995), senior project manager, Gammor India (P) ltd, trichy.
- A seminar on UI Development and Impact on UX research was organized on 30th December 2015, The Alumni Guest for this program was Mr Sriram Raghunathan, (2012-IT), Senior system engineer, Tivra technologies, Chennai

- A Guest Lecture on Light Weight Directory Access Protocol was organized on January 8th 2016, The Alumni guest for the program was Mr.T.Venkatesh srinivasan (2011-IT), Senior system engineer, TCS, Chennai.
- A Guest lecturer on Electrical Machine Design- In applications perspective was conducted on January 18<sup>th</sup> 2016. The alumni guest was Mr.J. Sasikumar, (2002,EEE) Electromagnetic design Engineer, Bangalore. 8792336880. mail id : jsassikumar@moog.com

**Workshop:**

- Department of Mechanical Engineering organized one day workshop on “Patenting & its procedures” on 06 October 2015. The Alumni guest was Mr. P.Balamurugan (1997-Mech), Asst., controller of Patents and designs, Chennai

**National / International Conference:**

- Department of Electrical and Electronics Engineering organized a National seminar on Smart Grid technology by the on 25<sup>th</sup> and 26<sup>th</sup> September 2015. The Alumni guest was Mr. R.Ilavarasi (2010) Engineer, ABB Bangalore.
- Department of computer science and engineering organized a guest lecture on National cyber security conference. The key note speaker, alumni was Dr.Karthiga (2005,M.tech -CSE), Asso.Prof/CSE, SSN college of Engineering, Chennai.
- The Department of mechanical engineering organized an International conference on Thermal, Energy & Environment INCOTEE2016 on 25<sup>th</sup> and 26<sup>th</sup> March 2016.
- The Department of Electronics and communication Engineering organised a National conference on VLSI Desgin & Signal Processing NCVSP’16 on 18<sup>th</sup> March 2016, The Alumni guest was Vithyasaahar sethumadhavan, vithyasaahar@gmx.de, & Abinesh Solairaj, Associate System Engineer, IBM p ltd, Bangalore.
- The Department of Instrumentation and Control Engineering organized a national conference on Intelligent Computing on Communication & Automation (NCICCA2016) on April 6<sup>th</sup> 2016.

**Others:**

1. Sponsorship for printing the file for mark sheet statement for IV year students.
2. Sponsored for Auditing fees for the year 2014-15.
3. Passport size photo taken for IV year students to print the alumni information handbook and also used to print degree certificate purpose.
4. Sixth Convocation held at our campus, convocation photo print and send it to all students home by post.
5. Sponsorship for Alumni website renewal charges.
6. Sponsorship for Chairman manimandapam opening.
7. Alumni diary sent to distinguished alumni members on January first week.
8. Alumni association renewal.
9. Alumni information handbook 2014-15 printing and distributed to all the departments

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

- Parent–Teacher Meeting is regularly conducted in each semester where parents’ grievances are addressed in the meeting. Feedback is collected from the parents and necessary action has been taken based on the feedback.
- Apart from these meetings, parents’ needs are individually catered by the respective tutors.
- Parents are always updated with the current happenings in the university through SIS-Students Information System (web portal), SMS and by calling them over phone.

S.No	Date	Name of programme	Amount
1	08.08.15	CSE Dept PTA Meeting	17075
2	05.09.15	EEE Dept PTA Meeting	24850
3	06.09.15	ECE Dept PTA Meeting	19880
4	06.09.15	ICE Dept PTA Meeting	1500
5	06.09.15	IT Dept PTA Meeting	5240
6	03.10.15	Civil Dept PTA Meeting	11850
7	11.10.15	Basic Science PTA Meeting	18740
8	23.01.16	Civil Dept PTA Meeting	11550
9	31.01.16	IT Dept PTA Meeting	5960
10	06.02.16	ECE Dept PTA Meeting	19850
11	09.02.16	IT Dept Workshop	12500
12	26.02.16	Biotech National Symposium	5000
13	27.02.16	Civil National Seminar	5000
14	06.03.16	EEE Dept PTA Meeting	15000
15	12.03.16	CSE Dept PTA Meeting	10002
16	18.03.16	ECE National Conference	5000
17	25.03.16	Mech. International conference	10000
18	31.03.16	ECE Lab view Workshop	5000
19	01.04.16	EEE National Conference	5000
20	08.05.16	TPO Offer Letter Distribution	92670
		<b>Total Amount:</b>	<b>301667</b>

#### 6.13 Development programmes for support staff

- Human values and Ethics
- Skill training program
- Road safety awareness programs

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

Green Army is the group of student volunteers who will be responsible to keep a watch on the judicious use of resources (Energy, fuel, water and food) and Clean and Green environment. KLU observes “Resources Conservation Day” on 3<sup>rd</sup> Wednesday of every month since Jan 2016. The various initiatives taken by Green Army are,

- (a) Energy audit was conducted at the central library of the university on 14<sup>th</sup> July 2015. This audit was focused on how efficiently the energy resources used and how the carbon foot print is reduced or optimized.
- (b) Green Army of KLU organised a guest lecture on “Green Audit” on 05<sup>th</sup> October 2015. The resource person was Mr.Ezhilarasu, M/s.TUV India Pvt Ltd, Coimbatore.
- (c) Green Army volunteers have organized “Campus Tree Adoption program” on 19<sup>th</sup> October 2015.
- (d) Green Army volunteers undertaken training on vehicle emission test at vehicle testing laboratory, Department of Automobile Engineering, KLU on 20<sup>th</sup> October 2015.



### Other Initiatives taken by Green Army

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

1. Reducing the carbon foot prints of our direct and indirect energy usage
2. Implementing Reduce, Reuse, and Recycle (RRR) principle wherever possible
3. Reduction in energy and water Consumption
4. Monitoring the usage of renewable resources
5. Purchase of energy efficient products
6. Conform to applicable legal and other requirements
7. Adopting waste segregation and proper disposal
8. Increasing green cover
9. Creating awareness, trainings all concerned stakeholders
10. Setting and reviewing the sustainable objectives and targets

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

- A campus tree care plan was formulated and necessary actions have been initiated as per plan.
- “Green Book”, a compilation of green initiatives carried out within the university campus was prepared.
- Shop owners inside the campus are informed not to use plastic bags, carry bags, plastic cups and plastic packing materials and burning of waste materials inside the campus is strictly prohibited.
- Solar cities program has been registered for the development of green campus with UGC-MNRE
- Solid waste management scheme, Liquid waste management scheme and E-waste management scheme are done effectively.

With all these efforts the KARE is being ranked at 6<sup>th</sup> at national level on “World University Green Metric Ranking-2015”, an initiative on sustainable campus by University of Indonesia and also ranked at 295 among world universities.

### Criterion – VII

#### 7. Innovations and Best Practices

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

- Community service Projects for III year students
- Soft Skill course conducted by M/S. Talent Sprint, Coimbatore

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>
Dissemination of information on campus activities by release of IQAC newsletter	(a) Design of forms for collecting information on various activities/events (b) Compilation of information on a weekly basis and cross confirmation by department heads. (c) Placing the content of newsletter in quarterly IQAC quarterly meeting for approval. (d) Printing and release of newsletter

Quality parameters assessment metrics for evaluation of departments	(a)Formulation of quantitative assessment procedure (b) Workshop to HODs to create awareness on the above. (c) Training to cell program coordinators. (d)Discussion on quarterly assessment with respect to department targets in IQAC meetings (e) Ranking of department at the end of IV quarter
Organize orientation programmes for faculty members regarding outcome based education	(a)Workshop on outcome based education. (b)Formulation of vision/Mission/PEOs/POs by all departments.
NBA Accreditation process for B.Tech BT, CSE and ECE	(a)Identification of potential departments for NBA Tier-I accreditation. (b)Training the faculty and guidance on preparing NBA-SAR (c) Arranging internal audit and external audit for assessing NBA preparation.
Feedback analysis of outgoing students	(a)Design of feedback forms under various criteria (b)Obtaining feedback during convocation (c) Analysis of feedback of UG/PG for all departments and conclude.

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**

- Integrated Overall Skill Development through Non-CGPA Courses

#### **2. Objectives of the Practices**

- The primary objective of this practice is to provide a platform for students to excel in their activities outside the academic curriculum.
- The non-CGPA courses include in-plant training, industry lectures, soft skills, international certifications, co-curricular activities, extra-curricular activities, sports, NCC, NSS, international proficiency exams like TOEFL, GRE, CAT, GMAT, GATE and learning foreign languages like German, Romanian, Korean, etc
- These non-CGPA courses help students to get good industry exposure, gain soft skills and become eligible for higher studies in India/abroad

#### **3. The Context**

- The scenario in higher education worldwide is changing from conventional output based education to outcome based education wherein a student is expected to possess certain attributes at the time of graduation as prescribed by NBA (called Graduate Attributes). These include aspects covering academia (quality as engineers and researchers), contribution to society and community (engineer and society; environment and sustainability) and employability (ethics; individual and team work; communication; project management; lifelong learning). The nonCGPA courses are so designed that it can cater to the needs of employability and contribution to society and community so that the students are better prepared to face the ever increasing challenges in the corporate sector.

#### 4. The Practice

- The Non-CGPA courses are classified into 4 major groups. Each student has to mandatorily take at least one course from each group and a total of 6 courses (18 credits) to qualify for non-CGPA requirements.
- Group – I courses include Industrial Training (students are exposed to various processes/technologies adopted in the industry), Advanced Industrial Training (besides exposure to processes/technologies; specification of equipment/tools student was trained in; alternatives available for the processes/services based on literature review and discussion with industrial experts; advanced technologies available for specific domain and special focus on testing/quality/safety/maintenance/environmental issues etc) and Industrial lectures by experts from industries (minimum 6). Both the industrial training is of two weeks duration.
- Group-II courses include soft skill training (personality grooming and communication skills; analytical and problem solving skills and presentation skills/GD/interview skills – all these are planned over a span of 3.5 years), international certification courses (IBM certifications, MySQL, LabView from NI etc), co-curricular activities (any three out of the following four options viz., professional society membership and participation in activities; paper presentation/publication; value-added courses and mini-projects/model development)
- Group-III courses include sports (minimum 40 hours with 80% attendance), National Cadet Corps (with a common syllabus for all the 4 years of UG consisting of national integration; drill; weapon training; leadership; disaster management; social service; health and hygiene; adventure activities; environmental and ecology; self defence and posture training – all of which are covered in the regular 40 parades and in special classes), National Service Scheme (a student should have put 240 hours in a period of 2 years which includes orientation course, campus work and community service contributing 60 hours per semester; in addition, one annual special camp), extra-curricular activities (includes as activities as prescribed by departments/clubs which include photography, music, dance, literature club, quiz club, nature club etc)
- Group-IV courses include English proficiency certification (BEC; TOEFL; IELTS), Aptitude proficiency certification (GRE; GMAT; GATE; CAT; NACTech; TANCET) and other languages (foreign language; Hindi etc).
- The non-CGPA course at KARE is integrated as a mandatory part of B.Tech Curriculum and is therefore unique in the context of Indian higher education.

S.No	Group	Category	Min.Credit Requirement
1	Group I	Industrial Treaining	3
2		Advanced Industrial Training	
3		Industrial Lectures	
4	Group II	Soft Skills	3

5		International Certification	
6		Co-Curricular Activities	
7	Group III	Sports	3
8		NCC	
9		NSS	
10		Extracurricular activities	
11	Group IV	English proficiency certification	3
12		Aptitude proficiency certification	
13		Foreign Languages	
Total Requirement of credits			18

### 5. Evidence of Success

- Since, non-CGPA is mandatory for all the students to be eligible for getting their degree, it has 100% success.
- Besides, the feedbacks from the recruiters, distinguished visitor and eminent person visiting the campus have been very encouraging on the performance of our students in communication skills, presentation skills etc. This leads to successful recruitment done by 77 employers who visited our campus last year and recruited 1367 students.

### 6. Problems Encountered and Resources Required

- The main problem for the student is to plan and manage time to complete the 18 credits on time, particularly in foreign languages category.
- The university offers Korean and Romanian language through professor from South Korea and Romania respectively through contact mode. In general, the University is creating all the possible avenues to offer all supports required for timely completion of the course.

### Best Practice – II

#### 1. Title of the Practices

- Speech and Hearing Impairment Programme (SHIP)

#### 2. Objectives of the Practices

- To impart Technical education to the differently able students.
- To make these students employable
- To make the students excel in the chosen field of interest.
- To provide equal opportunity in technical education for differently able students
- To equip them with the adequate skills for employability

#### 3. The Context

- KARE is the first Technical Institute to offer special B.Tech. Programs in the whole of Asia for children with speech and hearing impairment. Although with great potential for technical competence, there are no opportunities available for such students for technical training. This special programme was formally inaugurated by the then President of India, Hon. Dr. A.P.J. Abdul Kalam on 5<sup>th</sup> January 2007. The medium of instruction is English.
- During the first two years of study, the students are prepared for Senior Secondary Examination conducted by NIOS (National Institute of Open Schooling, MHRD, Govt

of India). These students are given an option to specialize in one of the following branches: Computer Science & Engineering, Mechanical Engineering, and Civil Engineering & Information Technology.

- The Institute also has Speech and Audiology lab to monitor and enhance the speech and hearing levels of these students

#### 4. The Practice

- Bilingual-Bicultural: In this approach, American Sign Language is the only method used in the classroom. Traditional English is taught through exposure to printed words on paper
- Auditory/Oral: This teaching approach does not use sign language, but instead teaches the English Language through residual hearing and speech
- Total Communication: This method combines auditory and visual communication for instruction. A combination of sign systems is used, including American Sign Language, signed English, speech and sign language used simultaneously, cued speech and/or other communication methods.
- Active learning: Peer instruction, discussion groups and collaborative problem solving
- Assistive Technical Capabilities: FM Systems which amplify sound from an instructor's microphone for maximizing auditory abilities for those students with some degree of hearing.

#### 5. Evidence of Success- Placement Records

2012-13				
1	CSE	SHIP	Ananthlaskhmi B. S.	Acire Technologies
2	CSE	SHIP	Deepa nair V.S	Acire Technologies
3	CSE	SHIP	Madhu mathi N.	Acire Technologies
4	CSE	SHIP	Periyasamy M.	Acire Technologies
5	CSE	SHIP	Sabari venkatesh V. T	Acire Technologies
6	CSE	SHIP	Srimathi S.	Acire Technologies
7	CSE	SHIP	Sriram krishna thulasi	Acire Technologies
8	CSE	SHIP	Maha raja S.	Acire Technologies
9	CSE	SHIP	Sundar S.	CGI
10	CSE	SHIP	Mani kandan M.	CGI
11	CSE	SHIP	Madhu mathi N.	CGI

12	CSE	SHIP	Madhu mathi N.	Scope International
13	CSE	SHIP	Venu rakesh V.	Scope International
14	Mech	SHIP	Mathan kumar .V	Scope International
15	CSE	SHIP	Haja jahabar sahib M.	Scope International
16	CSE	SHIP	Mani kandan M.	Scope International
17	CSE	SHIP	Monica R.	Scope International
18	CSE	SHIP	Deepika.V	Sutherland Global Services
19	CSE	SHIP	Madhu mathi N.	Sutherland Global Services
20	CSE	SHIP	Mani kandan M.	Sutherland Global Services
21	CSE	SHIP	Monica R.	Sutherland Global Services
22	CSE	SHIP	Renisha R.	Sutherland Global Services
23	CSE	SHIP	Sabari venkatesh V. T	Sutherland Global Services
24	CSE	SHIP	Shobana T.	Sutherland Global Services
25	CSE	SHIP	Sirish babu T G.	Sutherland Global Services
26	CSE	SHIP	Soniya C.	Sutherland Global Services
27	Mech	SHIP	Annamalai P.	Sutherland Global Services
28	Mech	SHIP	Ramesh V.	Sutherland Global Services
29	CSE	SHIP	Haffiz T.M.	Sutherland Global Services
<b>2013-14</b>				
1	CSE	SHIP	J. kishore	Trust RCM
2	CSE	SHIP	S. Saranya	Trust RCM
3	CSE	SHIP	Amjesh jose	Trust RCM
4	CSE	SHIP	R. Ashok Gowtham	Trust RCM
5	CSE	SHIP	B. Balachander	Trust RCM
6	CSE	SHIP	Devashish	Trust RCM
7	CSE	SHIP	M. Easwar	Trust RCM
8	CSE	SHIP	M. Ganesh Kumar	Trust RCM

9	CSE	SHIP	B. Kohila	Trust RCM
10	CSE	SHIP	V. Rajkumar	Trust RCM
11	CSE	SHIP	M. Rajavignesh	Trust RCM
12	CSE	SHIP	C.Ranjini	Trust RCM
13	CSE	SHIP	G. Sugnaya	Trust RCM
14	CSE	SHIP	S.Somasundaram	Trust RCM
15	CSE	SHIP	T. Saianand Prasath	Trust RCM
16	CSE	SHIP	M.D Vinoth Kumar	Trust RCM
17	CSE	SHIP	B. Yoven Bharatharaj	Trust RCM
18	Mech	SHIP	N. Yuvaraj	Trust RCM
19	Mech	SHIP	S. Nagim Fazil	Trust RCM
20	Mech	SHIP	L. Venkatesh	Trust RCM
21	Mech	SHIP	S.Nagarajan	Trust RCM
<b>2014-15</b>				
1	CSE	SHIP	Ammu P.S	Indian Association for the Blind
2	CSE	SHIP	Rekha R	Indian Association for the Blind
3	CSE	SHIP	Annie R	Indian Association for the Blind
4	CSE	SHIP	Dhanalakshmi G	Indian Association for the Blind
5	CSE	SHIP	Pandimurugan S	Indian Association for the Blind
6	CSE	SHIP	Santhosh A	Indian Association for the Blind
7	CSE	SHIP	Renia zainabha	TNQ Books
8	CSE	SHIP	Sabarinath P	TNQ Books
9	CSE	SHIP	Zuhaina khadheeja M	TNQ Books / Ernst & Young Services
10	CSE	SHIP	Sathya S	Trust RCM
11	CSE	SHIP	Thirumanrajani R	Trust RCM / Indian Association
12	CSE	SHIP	Annalakshmi P	Trust RCM / TNQ
13	MECH	SHIP	Selva ganesh	Indian Association for the Blind

14	MECH	SHIP	Manikandan R. N.	Indian Association for the Blind
15	MECH	SHIP	Pranesh K	Indian Association for the Blind
16	MECH	SHIP	Arulanantham E	Indian Association for the Blind
17	MECH	SHIP	Noorullah K.	Indian Association for the Blind
18	MECH	SHIP	Prabhakaran K	Indian Association for the Blind
19	MECH	SHIP	Shivaramakrishnan G	Indian Association for the Blind
20	MECH	SHIP	Vishnu pranavan R	Indian Association for the Blind
21	MECH	SHIP	Chandra sekar S	Trust RCM
22	MECH	SHIP	Gopinath P	Trust RCM
23	MECH	SHIP	Tamilarasan T	Trust RCM

## 6. Problems Encountered and Resources Required

- Hearing impaired students are slow learners and hence frequent repetition of lessons is required
- Teaching English language is not easy as these students are exempted from one language at the school level.
- Students find difficulty in assimilating concepts and remembering them for long
- Non availability of proper sign language for technical terms.
- Sensitive to environment.

### Resources required

- Development of proper sign language for technical terms
- Assistive technologies for both learning and living environment
- Speech to sign converter and interpreter (software).
- ICT tools tailored to hearing impaired students.
- E-learning content suitable for H.I students

## Best Practice – III

### 1. Title of the Practice

- Semester Long Industrial Project

### Objectives of the Practices

The primary objectives of this practice are:

- To identify field problems that need technical solutions and to learn relevant new technologies/processes to analyze and solve such problems
- To provide an opportunity to students to experience the work culture of the industry by being part of it
- To learn practical skills such as project management, team spirit, communication
- To motivate students spirit of research in terms of publication in reputed conferences and journals.



## 2. The Context

- KARE strongly believes in that the effectiveness of engineering training imparted to students is most appropriately tested by their involvement in taking up and completing a technically useful project work. An engineer should be a designer, thinker, innovator and system integrator, and for this to happen he/she should be allowed to independently put together all aspects of learning to solve a practical problem. The best way to provide such opportunity is to allow the students to become a part of work that is being implemented in an industry or in a research lab. The most challenging issue in implementing this practice is the difficulty in facilitating those students who have backlog course which mandates their presence in the campus. The university has tried to address this issue to a great degree by providing choice to the students to choose the project either in the 7th or 8th semester.

## 3. The Practice

- The project work is of a semester long duration without any other additional course work load on the student except a self study course (which can even be online course) so that the student is completely free and fully focused on the project work
- By the end of 6th semester (for students who want to opt for project in 7th semester) or at the end of 7th semester (for students who want to opt for project in the 8th semester), the students' either with the help of their faculty advisors or on their own interest should finalize the industry or the research lab in which they are interested in doing the project
- The Head of Department constitutes a Project Review Committee which scrutinizes such applications and recommends the HoD. After the approval from HoD, application is submitted to the Coordinator (Corporate Relations) for final approval. For each project, ideally 3-4 students are there in a batch who will have one external guide (in the industry) as the main guide and one internal faculty (in the department) as the co-guide
- The title and quantum of work to be done in the project are decided in mutual consultation with both the external and internal guides. The progress of the students in the project work is assessed by the Project Review Committee through three periodical reviews either by visiting the industry site or by inviting the students to the campus. However, the students are free to contact their internal guide or any other faculty member any number of times during their project work. This system ensures that the project is not completed in the last few days but is carried systematically throughout the semester
- In case, a particular project work is not found to show satisfactory progress during the intermediate assessment, the Project Review Committee can recommend for converting it to fully internal on-campus project
- The students are trained in doing detailed literature reviews and connecting what they learn to the problem they intend to solve. Many students have learnt upcoming technologies by such exposure to industries
- The semester long project system as envisaged in the curriculum of KARE is unique to achieve most of the graduate attributes that are expected from a student as recommended by NBA

#### 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 work in reputed conferences and journals.
- A sample list of completed projects is given below. Details are kept in individual departments which can be seen during the committee visit to the campus

S.No	Dept	Name of the Students	Name of the Company
1	Biotech	Alieschristopreethi.B Sivakami Subhashini.T	Unibiosys Biotech Research Institute, Cochin,Kerela
2	Civil	Princyprema Rani	CECRI, KARAIKUDI
3	CSE	M.A.Rajavel R.Selvavignesh	Link ware technologies Private limited, Chennai
4	ECE	G.Selvavignesh	Vernalis, Madurai
5	EEE	A.Domnic Delfiya K.Anusiya	Epaxes Industrial Automation, Chennai
6	EIE	Alagesh Kanna	Southern railways, Madurai
7	IT	B.Goutham, R.Guruvenkatesh E.Joelroymathew	Trinitive, Chennai
8	MECH	Velmurugan, Vinothkumar Senthamil selvam	Fertilizer and Chemicals, Travancore Ltd, Cochin.
9	MBA	P.A.Abdull Malik	AVR Manufacturers, Chennai

#### 5. Problems Encountered and Resources Required

- One of the challenges faced in financing such projects as of now is that, the students have to bear their travel, stay and any other expenditure related to the project work, and this sometimes become difficult for students coming from economically weaker section of society. Such students, though very much interested, are not able to choose industry oriented projects
- For students who opt for project work in 8th semester, it sometimes become difficult to fully concentrate on the project work if they have to visit the campus for taking part in campus recruitment programmes etc

#### 7.4 Contribution to environmental awareness / protection

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

- To ensure judicious use of fans and lights inside and outside the class rooms to minimize electricity consumption.
- To ensure litter free environment inside the class room and corridor of the respective class room.
- To organize minimum two events in line with “SwachhBharath” campaign within the campus and outside the campus under the leadership of Green Team (Faculty) members in a semester.
- Educate and advice co-students to follow environment friendly practices inside and outside the class room and in the campus as well.
- Report to the Green Team if any abuse of environment by any stakeholders observed within the campus.

KLU organised a series of events to create environmental awareness

- Green Army of KLU organized a Guest Lecture on “Recycling Revolution” on 24<sup>th</sup> December 2015. The Chief guest was Mr.S.Venkatapathy, Environmentalist , Madurai.
- Green Army of KLU organized Resource Conservation day on 17<sup>th</sup> February 2016.
- “World Earth day” was celebrated on 22<sup>nd</sup> April 2016 and on this day, all the major resources are conceived and encouraged to plant saplings as well.
- Green Army observed “World Environment Day” on 5<sup>th</sup> June 2016 where all the faculty members, students, visitors are advised not to use vehicles inside the campus and encouraged to walk.
- KLU Nature club has organized a guest lecture on first aid on 11<sup>th</sup> February 2016.
- KLU Nature club has organized an intra university competition “Vidhai 16” on 28<sup>th</sup> February 2016.

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**

##### **(a) Academic Curriculum Tuned to Industry Needs**

- The KARE offers a very well designed academic structure for all its programmes, particularly B.Tech programmes which is designed with the Choice-based Relative Credit System just as in IITs and other institutions in abroad.
- KARE is one of the proactive private institution in the country which recognize the needs of industries to have highly competent human resource at the entry level and hence designed and developed the curriculum accordingly
- With this idea, KARE has incorporated a built-in system in the curriculum wherein practical components are added to theory-based courses which otherwise

don't have allied laboratory course. The concept of mini projects within the laboratory course is introduced so as to enable the students to develop their abilities to apply engineering principles in real life situations. This effort is further enhanced by introducing the innovative system of offering one-credit courses by experts from industries or scientists from research labs or professors from overseas universities which ensures that the students get a practical feel of the needs of the industry and also get required training in the practical skills that they are expected to acquire well before they take up their professional career.

- KARE, through innovative academic initiatives offers non-CGPA courses which are aimed to integrate soft skills and industrial oriented training into regular curriculum
- To meet the expectations of constantly changing technology adopted by MNCs, KARE offers foreign language courses in German, French, Korean and Romanian. Many companies visiting the campus for recruitment have greatly appreciated this unique feature. In a nutshell, KARE is committed to prepare the students for a long-standing, satisfying and growing professional career and not just merely a job

#### **(b) Demonstrated Research Potential**

- KARE is identified as one of the “Research Intensive Higher Educational Institutions in India” stated by a leading Indian Scientific Journal **Current Science** (August 2014). KARE is ranked 78 out of 138 Indian Universities (including IITs/IISc) and is ranked 7 amongst the Private Institutions in India in terms of quality of research. This clearly demonstrates its strong research potential
- The University has a h-index of 38 (Ref: SCOPUS). There are 635 peer-reviewed publications under KARE affiliation in the last four years. The Department of Instrumentation and Control Engineering, Mechanical Engineering and Electronics and Communication Engineering have received prestigious DST-FIST projects. Besides this, two of our major centers of excellence namely TIFAC-Core in Network Engineering and National Center for Advanced Research in Discrete
- It is also highly noteworthy that Prof. Theivasanthi, a research faculty in the International Research Center has innovated Superparamagnetic Plants Materials (size 15nm) named “Santhi Particles” which has made an entry as World Record in LIMCA Book. This is a remarkable benchmark in the nanotechnology research field
- There are 16 ongoing government funded research projects with the faculty members. Due to the research ambience provided by KARE, our UG students have also excelled in demonstrating their creative potential which is reflected in terms of filing of 28 patents through student projects.

#### **(c) State – of – the–Art Infrastructural Facilities**

- KARE has excellent infrastructure spreading over 21,59,274 sq ft with 10 Academic Blocks, 7 Hostels, A/C Auditorium, Seminar Halls, Sports facilities including an Indoor Stadium with GYM, an Olympic Standard Swimming Pool etc.

- The Central Library is fully air-conditioned with a seating capacity of 450 and well protected by CCTV spread over an area of 1 lakh sq.ft. The library has over 70,000 volumes in Engineering, Sciences, Management and Arts. The library has a Media Resource Center and a Video Conference Hall facilitating students' interaction worldwide. The campus is 24x7 Wi-Fi enabled.
- It is especially noteworthy that KARE has created infrastructural facilities for world class research in a rural and remote region of the State with the establishment of an International Research Center, a unique facility that spans 1lakh square feet, dedicated to research in Material Sciences, Energy and Computing. In the Materials Lab, students have already made serious headway in developing durable industry grade spare parts using natural fibers.
- The Nano-materials Lab is currently capable of producing diverse range of metal based/ metal free nano materials. Cutting edge technology and expertise come together to create materials that will eventually revolutionize future industrial scenario around the globe. Most of the equipment at the IRC costs in Crores of rupees and these are only available in one or two other institutions in the country. Their precision and advanced functions have elicited interest from scientific organizations abroad, who wish to utilize these facilities. Some of the major equipment in the facility are: INDFURR Inert Atmospheric High Temperature
- Furnace, INDFURR Box Type High Temperature Furnace, Rocher Vacuum pump, Universal Testing Machine, Digital Impact Tester, Pin-on-Disc Wear Tester, Rotary Bending Fatigue Tester, Trinocular Microscope, Corrosion Analyzer and Compression Molding Machine.
- KARE is keenly taking more and more initiatives in establishing state-of-the-art Research Labs in all the departments. In its recent major initiative, KARE has created the 'National Cyber Defense Research Center' in association with National Cyber Safety and Security Standards.

**(d) Good Bonding with Industries and International Institutions**

- KARE is continuously strengthening its connection with industries of international repute to set-up many research labs. M/s. Cisco Systems have set-up Routing and Switching Lab & Wireless Network Lab, IBM has supported the IBM Software Center for Excellence, ABB has set-up Power Systems Automation Lab.
- In collaboration with the Texas Instruments, Bengaluru, the Department of ECE has set up Embedded Systems Lab and Analog System Design Lab. M/s Altera Corporations and M/s Intel (under Intel University Program) have supported in establishment of DSP Based System Design Lab and Intel Microcontroller Lab respectively in the department of ECE. M/s FORD India Limited has sponsored a FORD Eco Sports Car for the Vehicle Testing Lab of the Department of Automobile Engineering.
- KARE has signed a MoU with TAFE (Tractors and Farm Equipment Limited) for offering M.Tech (Manufacturing) for TAFE employees. As a part of this MoU, many UG students' projects are carried out in collaboration with TAFE.
- The Technology Innovation Center is set up with the innovative support of National Instruments, Bengaluru with the objective of inculcating thinking among the students. The major software facilities of the center are LabVIEW (Campus wide license) and MULTISIM; and hardware MyDAQ, MyRIO, CRIO, CDAQ, ELVIS Mechatronics Kit, ELVIS Optical Communication Board, ELVIS Signal Processing Board etc. The center has already organized Short Term Workshops on MULTISIM, LabVIEW and NI Hardware for faculty members and students. It also offers CLAD International Certification.
- KARE in collaboration with M/s. Tessolve, Bengaluru (one of the leading Semiconductor Services Company in India) is planning to offer a unique M.Tech programme in VLSI Design,

Test and Manufacturing. The programme has been Co-designed and Co-administered by KARE and TESSOLVE. This Programme is unique in terms of its real-time and project-based curriculum and industry-specific course contents. The curriculum has been designed in consultation with Industry partners anticipating the current and future industry trends

- At KARE, educational opportunities are truly at a global scale. KARE has signed MoUs with 20 well known overseas universities from various countries for academic research collaborations. These MoUs are facilitating faculty and/or Kalasalingam Academy of Research and Education students exchange programs, collaborative research projects, offering foreign languages including Korean, Romanian languages. The students undergoing Semester Abroad Programme has to pay the regular tuition fee to KARE only. Students can also avail scholarships from partner institutions across the world to fund their travel and stay. Eminent professors and leaders of research have visited KARE to teach special courses to the students. These courses give our students an edge over the rest.

#### **(e) Perfect Ambience for Learning**

- In order to make an impact on our young students, it is important to have a proper natural ambience besides infrastructural and other facilities. The KARE is created on a spacious, eco-friendly institution with plenty of flora and fauna around.
- On weekends, when the campus is mostly traffic free, it is a lovely sight to see the visitors from the Western Ghats like Peacocks, Peahens, batches of Deer, Bison, Wild Boars, Hedgehogs, to name a few. The presence of a sizable number of heterogeneous student communities on campus helps prevail a multicultural atmosphere. The calm and quiet environment, completely away from the humdrum of a city life, is ideally suited for concentrated learning. Besides, KARE is situated in close proximity to many centers of cultural and spiritual heritage sites such as the famous Andal Temple in Srivilliputtur, Meenakshi Temple in Madurai and Swami Vivekananda Rock in Kanyakumari.
- KARE is the first institution in India to offer the special B.Tech programme for the Speech and Hearing Impaired Persons (SHIP). The presence of the so-called physically challenged students, who are given equal opportunity to study with other students and share rooms in the hostel, invokes in the mind of others feelings of compassion and empathy.
- It also invokes humanitarian feelings in the minds of faculty and staff who teach or interact with these students. In a society which is getting estranged from humanitarian feelings, KARE is serving the society in bridging this gap by its innovative programmes.
- The regular visit of nationally and internationally distinguished visitors to KARE adds one more feather on KARE's cap. A gist of eminent persons who visited the campus in last two years is as follows: Hon'ble K. Rosaiah, Governor of Tamilnadu; Dr. K. Sivan, Distinguished Scientist & Director, Liquid Propulsion
- Systems Center, ISRO, Thiruvananthapuram; Dr. B. Venkatraman, Outstanding Scientist and Associate Director, IGCAR, Kalpakkam; Mr. K. Chokalingam, IPS, Inspector General of Police, Govt. of Tamilnadu, Mr. V. Saravanakumar, IAS, District Collector & District Magistrate, Rajasthan; Dr. K.M. Koh, Department of
- Mathematics, National University of Singapore, Singapore; Dr. Alison Marr, Department of Mathematics and Computer Science, Southwestern University, USA; Professor. Jay Bagga, Professor of Computer Science, Ball State University, Muncie, Indiana, USA; Mr. Justice T.N. Villinayagam, Judge, Lok Adalat & Former Judge, High Court of Madras; Dr. G.A. Rajkumar, IAS, Chairman, National Executive Committee, National Cyber Safety and Security Standards;

Dr. Vijayamohanam, Director, CSIR- CECRI, Karaikudi; Mr. T.S. Rengarajan, Secretary, IEEE India Council, Madras; Dr. Adi Idris Vi, Group Leader University Brunei Darussalam, Brunei; Mr. Balunyua Baker, Embassy of Uganda, N. Delhi; Mr. Pattabiraman Krishnaswamy, Head, Accreditation Process, South India Tata Consultancy Services; Dr. Kuruvila Joseph, Scientist, Indian Institute Space Science and Technology, Trivandram; Sailendra Babu, IPS, Additional Director General of Police, Tamilnadu, Dr. Irai Anbu, IAS, Chairman for Tourism, Culture and Religious Endowments Department, Tamilnadu.

#### **(f) Commitment to Quality Enhancement**

- KARE is fully committed to improve quality in all aspects. In its first accreditation, NAAC has assessed and awarded this university with 'B' grade indicating that quality is 'Good'. This was the case when hardly three or four years have passed after this institution attained Deemed University status. Since then, the IQAC of the KARE has come up with quality measures to ensure and improve quality in faculty credentials, student credentials, research outputs and academic curriculum through a systematic and continuous quality assessment process involving experts from reputed institutes and industries as members. Already three of our UG programmes have gone for NBA accreditation process and other programmes are in the pipeline.
- KARE is continuously monitoring and adapting to the changing scenarios in higher education. In a very recent initiative, recognizing the thrust placed by IEEE about students' involvement in community services in collaboration with school students and non-profit organizations, KARE has planned to incorporate this concept mandatorily in the curriculum from the academic year 2015-16.

#### **WEAKNESS**

- Attracting competent faculty from all over India and maintain a composite and critical push to all the programmes has been a constraint due to non availability of good school education to faculty/staff wards. Now this has been taken care of by opening of new 'CBSE – Linga Global School' in the vicinity of the campus by the same Trust/Society from June 2015 onwards
- 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**

- The Government of India is entering into many bilateral funding projects in collaboration with other countries such as Brazil, Japan, Taiwan etc. Faculty members of KARE can utilize these opportunities for post doctoral research and work as visiting faculty etc
- With growing opportunities in the field of Arts and Science and other interdisciplinary fields, KARE can capitalize on offering innovative curriculum and training which is otherwise difficult in the regular Arts and Science Colleges. With very good ambience for research and other infrastructural facilities, KARE can offer diversified courses catering to the needs of all.
- KARE has started creating impact in quality research and education, and this can be utilized now for attracting more international students, increasing research Kalasalingam Academy of Research and Education collaborations, faculty exchange etc through the existing MoUs. Our faculty members have more postdoctoral experience and having more joint publications which will ensure an attractive proposition foreign students as well as research scholars.

- With the establishment of cutting edge research centers on campus, KARE has ample opportunities to contribute to the overall development of the region in which it is located in association with industry partners and/or NGOs. KARE already has a 'School Linkage Program' which can be used to benefit high school students by their participation in programs like 'EPICS in IEEE.

### CHALLENGES

- KARE, though attracting regionally oriented large students who are mostly educated through Tamil medium need to constantly enhance their soft skills. They need to be continuously monitored to develop overall competency to Industry requirements and nurture their ambitions to pursue higher education/good administrative positions through competitive means.
- Inculcating empowerment and removing age old concept of women is not equal to men among the rural mass and focus the main stream productive manpower is yet to be overcome, though more number of girl students are attracted to KARE.
- Being a growing Institution its ability to attract more students to its Post Graduate Programmes are still need to be pursued through more Industry-Institute Collaborative arrangements. This will ensure Industry ready human resource to take leadership role.
- Research is a specialized field and its relevance aligned to International Development need to be constantly invested in terms of special facilities, equipments, software and hardware facilities. Competent research faculty have high mobility and their availability is constrained

### 8. Plans of institution for next year

- To revise the curriculum and syllabus for programs in 2016-17 to adhere UGC guidelines in Choice Based Credit System(CBCS)
- To create a separate centre for competitive examinations with a dedicated director
- Post auditing of question paper with blooms taxonomy
- An Automated software by IQAC for all the four IQAC criterions
- To Introduce agriculture and horticulture departments
- To Establish new Memorandum of Understandings(Mou's) with reputed industries and institutions (inside and outside India)

Name DR. C. SIVAPRAGASAM

Name DR. S. SARANANASANKAR

*Dr. C. Sivapragasam*  
Signature of the Coordinator, IQAC

*Dr. S. Sarananasankar*  
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

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