

*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

# NAAC

## **VISION**

*To make quality the defining element of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives.*

## **MISSION**

- ☞ To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programmes or projects;*
- ☞ To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions;*
- ☞ To encourage self-evaluation, accountability, autonomy and innovations in higher education;*
- ☞ To undertake quality-related research studies, consultancy and training programmes, and*
- ☞ To collaborate with other stakeholders of higher education for quality evaluation, promotion and sustenance.*

## **Value Framework**

To promote the following core values among the HEIs of the country:

- Contributing to National Development*
- Fostering Global Competencies among Students*
- Inculcating a Value System among Students*
- Promoting the Use of Technology*
- Quest for Excellence*

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

## **Introduction**

In pursuance of its Action Plan for performance evaluation, assessment and accreditation and quality up-gradation of institutions of higher education, the National Assessment and Accreditation Council (NAAC), Bangalore proposes that every accredited institution should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance measure. Since quality enhancement is a continuous process, the IQAC will become a part of the institution's system and work towards realisation of the goals of quality enhancement and sustenance. The prime task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in the overall performance of institutions. For this, during the post-accreditation period, it will channelize all efforts and measures of the institution towards promoting its holistic academic excellence.

The guidelines provided in the following pages will guide and facilitate the institution in the creation and operation of the Internal Quality Assurance Cell (IQAC). The work of the IQAC is the first step towards internalization and institutionalization of quality enhancement initiatives. Its success depends upon the sense of belongingness and participation it can inculcate in all the constituents of the institution. It will not be yet another hierarchical structure or a record-keeping exercise in the institution. It will be a facilitative and participative voluntary system/unit/organ of the institution. It has the potential to become a vehicle for ushering in quality enhancement by working out planned interventionist strategies to remove deficiencies and enhance quality like the "Quality Circles" in industries.

## **Objective**

*The primary aim of IQAC is*

- To develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.
- To promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

## **Strategies**

*IQAC shall evolve mechanisms and procedures for*

- a) Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks;
- b) The relevance and quality of academic and research programmes;
- c) Equitable access to and affordability of academic programmes for various sections of society;
- d) Optimization and integration of modern methods of teaching and learning;
- e) The credibility of evaluation procedures;
- f) Ensuring the adequacy, maintenance and proper allocation of support structure and services;
- g) Sharing of research findings and networking with other institutions in India and abroad.

## **Functions**

*Some of the functions expected of the IQAC are:*

- a) Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution;
- b) Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process;
- c) Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes;
- d) Dissemination of information on various quality parameters of higher education;
- e) Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles;
- f) Documentation of the various programmes/activities leading to quality improvement;
- g) Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices;
- h) Development and maintenance of institutional database through MIS for the purpose of maintaining /enhancing the institutional quality;
- i) Development of Quality Culture in the institution;
- j) Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAAC.

## **Benefits**

*IQAC will facilitate / contribute*

- a) Ensure heightened level of clarity and focus in institutional functioning towards quality enhancement;
- b) Ensure internalization of the quality culture;

- b) Ensure enhancement and coordination among various activities of the institution and institutionalize all good practices;
- c) Provide a sound basis for decision-making to improve institutional functioning;
- d) Act as a dynamic system for quality changes in HEIs;
- e) Build an organised methodology of documentation and internal communication.

### **Composition of the IQAC**

IQAC may be constituted in every institution under the Chairmanship of the Head of the institution with heads of important academic and administrative units and a few teachers and a few distinguished educationists and representatives of local management and stakeholders.

The composition of the IQAC may be as follows:

1. Chairperson: Head of the Institution
2. A few senior administrative officers
3. Three to eight teachers
4. One member from the Management
5. One/two nominees from local society, Students and Alumni
6. One/two nominees from Employers /Industrialists/stakeholders
7. One of the senior teachers as the coordinator/Director of the IQAC

The composition of the IQAC will depend on the size and complexity of the institution. It helps the institutions in planning and monitoring. IQAC also gives stakeholders or beneficiaries a cross-sectional participation in the institution's quality enhancement activities. The guidelines given here are only indicative and will help the institutions for quality sustenance activities.

The membership of such nominated members shall be for a period of two years. The IQAC should meet at least once in every quarter. The quorum for the meeting shall be two-third of the total number of members. The agenda, minutes and Action Taken Reports are to be documented with official signatures and maintained electronically in a retrievable format.

It is necessary for the members of the IQAC to shoulder the responsibilities of generating and promoting awareness in the institution and to devote time for working out the procedural details. While selecting these members several precautions need to be taken. A few of them are listed below:

- ♦ It is advisable to choose persons from various backgrounds who have earned respect for integrity and excellence in their teaching and research. Moreover, they should be aware of the ground realities of the institutional environment. They should be known for their commitment to improving the quality of teaching and learning.

- ♦ It would be appropriate to choose as senior administrators, persons in charge of institutional services such as library, computer center, estate, student welfare, administration, academic tasks, examination and planning and development.
- ♦ The management representative should be a person who is aware of the institution's objectives, limitations and strengths and is committed to its improvement. The local society representatives should be of high social standing and should have made significant contributions to society and in particular to education.

### **The role of coordinator**

The role of the coordinator of the IQAC is crucial in ensuring the effective functioning of all the members. The coordinator of the IQAC may be a senior person with expertise in quality aspects. She/he may be a full-time functionary or, to start with, she/he may be a senior academic /administrator entrusted with the IQAC as an additional responsibility. Secretarial assistance may be facilitated by the administration. It is preferable that the coordinator may have sound knowledge about the computer, its various functions and usage for effective communication.

### **Operational Features of the IQAC**

Quality assurance is a by-product of ongoing efforts to define the objectives of an institution, to have a work plan to achieve them and to specify the checks and balances to evaluate the degree to which each of the tasks is fulfilled. Hence devotion and commitment to improvement rather than mere institutional control is the basis for devising procedures and instruments for assuring quality. The right balance between the health and growth of an institution needs to be struck. The IQAC has to ensure that whatever is done in the institution for "education" is done efficiently and effectively with high standards. In order to do this, the IQAC will have to first establish procedures and modalities to collect data and information on various aspects of institutional functioning.

The coordinator of the IQAC and the secretary will have a major role in implementing these functions. The IQAC may derive major support from the already existing units and mechanisms that contribute to the functions listed above. The operational features and functions discussed so far are broad-based to facilitate institutions towards academic excellence and institutions may adapt them to their specific needs.

### **Monitoring Mechanism**

The institutions need to submit yearly the Annual Quality Assurance Report (AQAR) to NAAC. A functional Internal Quality Assurance Cell (IQAC) and timely submission of Annual Quality Assurance Reports (AQARs) are the Minimum Institutional Requirements (MIR) to volunteer for second, third or subsequent cycle's accreditation. During the institutional visit the NAAC peer teams will interact with the IQACs to know the progress, functioning as well quality sustenance initiatives undertaken by them.

The Annual Quality Assurance Reports (AQAR) may be the part of the Annual Report. The AQAR shall be approved by the statutory bodies of the HEIs (such as Syndicate, Governing Council/Board) for the follow up action for necessary quality enhancement measures.

The Higher Education Institutions (HEI) shall submit the AQAR regularly to NAAC. The IQACs may create its exclusive window on its institutional website and regularly upload/ report on its activities, as well as for hosting the AQAR.

The NAAC Accredited institutions need to submit only the soft copy as word file (.doc/.docx) through e-mail ([capuaqar@gmail.com](mailto:capuaqar@gmail.com)). The file name needs to be submitted with Track ID of the institution and College Name. For example MHCOGN16601-Samudra Arts and Science College, Taliamegu-Maharashtra.doc or EC\_32\_A&A\_143 dated 3-5-2004-Samudra Arts and Science College, Taliamegu-Maharashtra.doc. The Higher Education Institutions need not submit the printed/hard copy to NAAC. The acknowledgements would be sent to the institutions through e-mail.

### **Mandatory Submission of AQAR by IQAC**

So far submission of AQARs was not a Mandatory requirement for Institutions applying to NAAC 2<sup>nd</sup> and subsequent cycles of Assessment and Accreditation (A&A). It has now been decided by the Executive committee of NAAC that **regular submission of AQARs should be made mandatory for 2<sup>nd</sup> and subsequent cycles of accreditation.**

In view of the decision of **Executive Committee of NAAC** the following will be the pre-requisites for submission of LOI for all Higher Education Institutions (HEIs) opting for 2<sup>nd</sup> and subsequent cycles of A& A **with effect from 16<sup>th</sup> September 2016:**

- ➔ Having a functional IQAC.
- ➔ The minutes of IQAC meeting and compliance to the decisions should be uploaded on the institutional website.
- ➔ Mandatory submission of AQARs on a regular basis for institutions undergoing the second and subsequent cycles of Assessment and Accreditation by NAAC.
- ➔ Upload the AQAR's on institutional website for access to all stakeholders.

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

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

### Part – A

#### 1. Details of the Institution

1.1 Name of the Institution

Velammal Engineering College

1.2 Address Line 1

Velammal New-Gen park

Address Line 2

Ambattur – Redhills Road

City/Town

Chennai

State

Tamil Nadu

Pin Code

600 066

Institution e-mail address

principal@velammal.edu.in

Contact Nos.

044 – 3966 60005

Name of the Head of the Institution:

Dr.N. Duraipandian

Tel. No. with STD Code:

044 – 3966 6010

Mobile:

0 – 89398 26491

Name of the IQAC Co-ordinator:

Dr.S. Srinath

Mobile:

0 – 99411 37212

IQAC e-mail address:

drsrinath.eee@velammal.edu.in

1.3 NAAC Track ID (For ex. MHC0GN 18879)

TNCOGN13954

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)

F.19.26/EC(SC-13)/DO/2016/39.2 dated  
17th March 2016

1.5 Website address:

www.velammal.edu.in

Web-link of the AQAR:

<http://www.velammal.edu.in/pdf/AQAR16-17.pdf>

For ex. <http://www.ladykeanecollege.edu.in/AQAR2012-13.doc>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	A	3.27	2009	5
2	2 <sup>nd</sup> Cycle	A	3.01	2015	5
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

1.7 Date of Establishment of IQAC :

DD/MM/YYYY

07-08-2010

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

2016 -17

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

i. AQAR 2015-16 submitted to NAAC on 11-02-2016

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)

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

Anna University, Chennai

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

Autonomy by State/Central Govt. / University

No

University with Potential for Excellence

UGC-CPE

DST Star Scheme

UGC-CE

UGC-Special Assistance Programme

DST-FIST

Yes

UGC-Innovative PG programmes

Any other (*Specify*)

UGC-COP Programmes

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

2.1 No. of Teachers

03

2.2 No. of Administrative/Technical staff

02

2.3 No. of students

09

2.4 No. of Management representatives

01

2.5 No. of Alumni

02

2.6 No. of any other stakeholder and  
community representatives

02

2.7 No. of Employers/ Industrialists

02

2.8 No. of other External Experts

02

2.9 Total No. of members

16

2.10 No. of IQAC meetings held

2.11 No. of meetings with various stakeholders:

No.

8

Faculty

2

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

2.14 Significant Activities and contributions made by IQAC

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
Acquirement of accreditation by NBA for five departments To improve the quality of teaching, research and enhancing the quality of engineering education in VEC	NPTEL online courses awareness was given to all students, Different club activities are conducted like Maths club, English Club, Coders club etc. To name a few

\* Annexure – 1- Academic calender

2.15 Whether the AQAR was placed in statutory body Yes  No

Management  Syndicate  Any other body

Provide the details of the action taken

## 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	04			
PG	08			
UG	09			10
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
<b>Total</b>				

Interdisciplinary				
Innovative				

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

##### (ii) Pattern of programmes:

Pattern	Number of programmes
Semester	17
Trimester	
Annual	

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

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

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

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

Regulation 2013 - Framed by Anna University is followed

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

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## Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty	Total	Asst. Professors	Associate Professors	Professors	Others
	230	187	19	24	-

2.2 No. of permanent faculty with Ph.D.

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
	20	12	15	13	11	2	0	0	46	27

2.4 No. of Guest and Visiting faculty and Temporary faculty

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	126	116	-
Presented papers	125	122	-
Resource Persons	6	15	17

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

Activity based learning, Role play, White box testing, Group discussion, Seminars, Quiz, NPTEL lectures, Spoken tutorial, Regular conduction of guest lectures, Industrial visits, Video lectures, Anna University Edu-Sat, E-learning facilities

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

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

Two sets of question papers, Comprehensive tests, Retests, Multiple choice questions

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

2.10 Average percentage of attendance of students



2.11 Course/Programme wise  
distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
B.E (AUTO)	65	7.9	90	4.7	4.7	95
B.E (CIVIL)	128	10	88	9	-	83.6
B.E (MECH)	201	5.47	72.6	12.43	-	92
B.E.(EEE)	134	16	94	11	-	94.77
B.E (ECE)	184	40	136	8	-	94.47%
B.E.(CSE)	190	11	133	12	-	82.11
B.Tech (IT)	10	3.33	78.33	13.33	-	95
B.E. (E&I)	129	12	90	15	12	90.7
B.E. (PROD.)	64	1	54	3	-	91
M.B.A	42	3	38	1		97.67

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

The IQAC was constituted to take up the following activities :

1. Development of Quality benchmark / parameters for various academic and administrative activities of the institute.
2. Organization of workshops, seminars and quality related themes.
3. Documentation of various programmes / activities leading to quality improvement.
4. Conducting internal quality audit periodically.
5. In the periodical Class Committee Meetings (CCMs), the students share their views on present teaching-learning process and how to improve them. The students have absolute freedom to clique the loopholes in the system and bring amendments to close the gap between the teaching and learning. They are encouraged to propose and organize various co-curricular and extra-curricular activities in the institution.

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	19
UGC – Faculty Improvement Programme	40
HRD programmes	36
Orientation programmes	105
Faculty exchange programme	10
Staff training conducted by the university	11
Staff training conducted by other institutions	62
Summer / Winter schools, Workshops, etc.	152
Others	NPTEL-14, Go Kart -1

#### 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	16	1	2	-
Technical Staff	25	5	1	-

## Criterion – III

### 3. Research, Consultancy and Extension

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

- Research projects taken up by the college are mostly of national relevance.
- Both postgraduate and under graduate students give preference to take up projects related to industrial and society needs.

#### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	6	3	1	23
Outlay in Rs. Lakhs	118.14L	60.85L	28L	187L

#### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1	3	2	9
Outlay in Rs. Lakhs	2L	0.25 L	-	-

#### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	95	4	-
Non-Peer Review Journals	70	-	-
e-Journals	28	2	-
Conference proceedings	75	25	-

#### 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	FIST, SERD-DST, DST-SSD, AICTE-RPS	62.57 L	62.57 L
Minor Projects	1 Year	ISRO, DST NIMAT	2.5 L	2.5 L
Interdisciplinary Projects				
Industry sponsored	1 Year	Sansel Instruments	0.25 L	0.25 L
Projects sponsored by the University/ College				
Students research projects <i>(other than compulsory by the University)</i>	1 Year	TNSCT	0.20 L	
Any other(Specify)				

Total			62.5 L	65.32 L
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3.7 No. of books published i) With ISBN No.  Chapters in Edited Books

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

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

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

3.10 Revenue generated through consultancy

3.11 No. of conferences  
organized by the Institution

Level	International	National	State	University	College
Number	1	7	1	-	-
Sponsoring agencies	DST, ISRO				

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  From Management of University/College

Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	
	Granted	
International	Applied	
	Granted	
Commercialised	Applied	
	Granted	

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

Total	International	National	State	University	Dist	College

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

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  State level   
National level  International level

3.24 No. of Awards won in NCC:

University level   
National level  International level

3.25 No. of Extension activities organized

University forum  College forum   
NCC  NSS  Any other

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

Independence day parade – 15<sup>th</sup> August 2016

Republic Day parade

Certification examinations to name a few.

## 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	19.76		Tuition Fee	
Class rooms	68	3		
Laboratories	55	2		
Seminar Halls	3			
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	UTM,CTM	8		
Value of the equipment purchased during the year (Rs. in Lakhs)	27.14 Lakhs	12.05	30000	
Others	101229			

#### 4.2 Computerization of administration and library

- Attendance for the entire campus is made through biometric system and monitored through system.
- E-governance at all levels and communication is sent to all departments through emails. Official domain mail id is provided to all faculty.
- LAN is maintained at all departments and internet facility is provided in all systems.
- Library is computerized and bar code scanning system is followed.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	70546	1,99,98,902	1870	8,45,327	72,416	2,08,44,229
Reference Books						
e-Books						
Journals	149	6,25,119	149	4,24,094	149	10,49,213
e-Journals	8594	6,39,560	9000	7,37,330	9000	13,76,890
Digital Database						
CD & Video						
Others (specify)						

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	1190	13	All	3	6	20	87	NIL
Added	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Total	1190	13	ALL	3	6	20	87	NIL

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

1GB strength for networking, 42MBPS dedicated line through OFC. All systems are interconnected.

4.6 Amount spent on maintenance in lakhs :

i) ICT	4.77 Lakhs
ii) Campus Infrastructure and facilities	400 Lakhs
iii) Equipments	32.95
iv) Others	2.44Lakhs
<b>Total :</b>	<b>440.16Lakhs</b>

## Criterion – V

### 5. Student Support and Progression

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

- The requirements and conduction of the services for students is discussed in a forum of HOD's meetings scheduled regularly every week conducted by the head of the institution.
- The awareness on such services are made to the student community through their respective faculty advisors and also through office circulars originated from the O/o. Principal from time to time.
- The support services like scholarships, library facilities, conduction of coaching classes, sports facilities etc are communicated also through notice boards maintained at different locations in the campus.

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

- 25% financial support is provided to students to participate in various competitions / conferences in India and abroad
- In association with the British Council, Business English Certification Programme is conducted for all students for training towards TOEFL and GRE
- Students are encouraged to attend technical / management competitive examinations like GATE,CAT, MAT etc.
- Aptitude, soft skill training is provided by the placement and training division.
- In-depth coverage of syllabus catering to practical oriented sessions help the students to excel in GATE exams.
- Official duty permission is given to students writing GATE, TOEFL, GRE, MAT, CAT etc. on their day of exams and also two days for preparation.
- Well facilitated communication lab is provided to enhance the students in their oral and wring skills and also in improving their skills in spoken English, computer literacy etc.
- Remedial classes are arranged for the slow learners, and student counsellors continuously monitor their progress.
- Official duty is permitted to students to participate and to show cause their talent in the inter college competitions increasing their exposure level.
- Students are encouraged to publish articles in student / college newsletters / magazines
- Entrepreneurial cell is available to motivate the students to become a successful entrepreneur.
- Industrial visits are arranged regularly to make the students aware of the current industrial standards and requirements in their field of study.

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

UG	PG	Ph. D.	Others
3905	438		

(b) No. of students outside the state

-

(c) No. of international students

-

Last Year 2015 – 16 (Total strength)						This Year 2016-17				
General	SC	ST	OBC	Physically Challenged	Total	General	SC & ST	OBC	Physically Challenged	Total
3857	610	19	389	01	4876	108	110	684		902

Demand ratio 98% Dropout % 1

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

- In association with the British Council, Business English Certification Programme is conducted for all students for training towards TOEFL and GRE
- Students are encouraged to attend technical / management competitive examinations like GATE, CAT, MAT etc.

No. of students beneficiaries

991 (All I year students)

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

NET  SET/SLET  GATE  CAT   
IAS/IPS etc  State PSC  UPSC  Others

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

Counselling is done by the individual faculty members and a a counsellor at institute level is appointed. A separate career guidance cell is organized and run by training and placement department.

No. of students benefitted

Placement guidance for all students

#### 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
155	654	546	70

#### 5.8 Details of gender sensitization programmes

International Women's day

## 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		
Financial support from government	1845	3,76,69,490
Financial support from other sources		
Number of students who received International/ National recognitions		

### 5.11 Student organised / initiatives

Fairs : State/ University level  National level  International level

Exhibition: State/ University level  National level  International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed: Grievances are addressed in the class committee meetings in the department headed by a senior faculty as Chairperson. Major grievances will be dealt through the grievance redressal committee.

## Criterion – VI

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

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

To educate the student community both by theory and practice to fit in with society and to conquer tomorrow's technology at global level with human values through our dedicated team.

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

Yes.

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

##### 6.3.1 Curriculum Development

Program Assessment Committee meetings are conducted every year with academic and industry experts evaluating the feedback of various state holders and inputs by the faculty and students. Department meetings are held to assess the Course outcome, Program Outcome and Program Educational Objectives.

##### 6.3.2 Teaching and Learning

Provision of state of the art learning resources in Central library  
Highly ventilating and hygienic classrooms  
Development of student support material  
Conduct of remedial / slow learners / toppers coaching classes  
Delivery of add-on-courses  
Conduct of pre-placement training classes and campus connect programmes  
Conduct of British English Language Certification courses  
Structured course files and lab manuals for all courses  
Continuous assessments and evaluation systems  
Academic audit  
Continuous improvement of resources

##### 6.3.3 Examination and Evaluation

Properly structured and organized exam cell  
Two question paper setting pattern  
Evaluation and result analysis  
Retest conduction if required

6.3.4 Research and Development

Formulation of Research committees  
Allocation of budget for in house R & D  
Incentives and rewards for publications / research  
Financial assistance to students for fabricating working

6.3.5 Library, ICT and physical infrastructure / instrumentation

Regular updation of Library facilities, ICT and Physical infrastructure

6.3.6 Human Resource Management

Transparent policy document  
Transparent and scientific way of recruitment  
Formulation and communication of policies of the college  
Support for academic advancement  
Systematic performance appraisal system and guidance to the people concerned  
Systematic promotion policies  
Democratic way of administration with participative management

6.3.7 Faculty and Staff recruitment

Systematic and procedural way of faculty & staff recruitment  
Panel members consisting of experts from IITs, NITs, other Universities and industries in addition to the internal experts

6.3.8 Industry Interaction / Collaboration

Regularly organisation of industrial visits  
Guest lectures by experts from industry

6.3.9 Admission of Students

Through single window counselling conducted by Anna University, Chennai

6.4 Welfare schemes for

Teaching	08
Non teaching	04
Students	04

6.5 Total corpus fund generated

Nil

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	YES	ISO, NBA	YES	Principal
Administrative	YES	ISO, N BA	YES	Principal

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?

-NA-

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

VEC is affiliated to Anna University

6.11 Activities and support from the Alumni Association

An active and effective alumni association is maintained by the training and placement department. Alumni association meetings are held every year and the alumnus are invited for interaction. Many of them take part and help in the grooming of students by sharing their experiences and technical knowledge in the form of guest lectures and help in placement trainings.

6.12 Activities and support from the Parent – Teacher Association

Parents are regularly contacted and visit the campus whenever necessary. Some of the parents help in arranging industrial visits, guest lectures etc.

6.13 Development programmes for support staff

The supporting staff are encouraged to attend various refresher courses , technical development seminars conducted by external agencies etc. The NSS wing conducts various programs for the supporting staff.

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

- Energy Conservation
- Use of renewable energy
- Water harvesting
- Check dam construction
- Plantation/Greening drives
- Hazardous waste management and e-waste management

## 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.

Though restricted by the limited academic freedom of an affiliated institution, this college has introduced a spectrum of transformative and innovative options during last four years to respond to the complex needs of its stakeholders, as mentioned hereunder.

#### **a) Innovative mechanism / process for internal quality checks**

In its quest for excellence, the institution seeks continuous innovation for quality assurance in academic programmes & administration. Some of the mechanisms adopted are:

##### **Academic system**

- Handouts with lecture plan, assignment questions, useful Uniform Resource Locators (URL) and references is made available to the students in the beginning of the semester.
- Content Preparation is made available to all the students.
- Close monitoring of course coverage through frequent meetings of HODs with faculty members.
- Class Committee meeting are held thrice in a semester.
- Regular monitoring of academic activities through Academic Committee (Principal & HOD).
- Periodic collection of student feedback on individual subject teachers.
- Review of performance of teachers based on feedback and pass percentage of students at university examinations.
- Faculty mentors for every 20 students.
- Remedial classes, bridge courses to make up for weak and slow learners.
- Inviting experienced academia from reputed institutions and industry experts for delivering guest lectures.
- Incentives for those carrying out research and publishing papers/participating in Seminars/Conferences.
- Parents are informed about the performance of students after every internal examination. The attendance of students is closely monitored and informed to parents once in a fortnight. Also the performance of the students in the internal examination is communicated to parents. The students are counseled in this regard.

##### **Administrative system:**

Administrative mechanisms are in place for quality assurances are:

- An exclusive Examination Section headed by Officer-In-charge Examination is constituted.
- Training and Placement Cell takes care of all the aspects related to placements.
- College administration is run through Management, CEO, Advisor, Principal, Deans,

- HODs and Professors. All decisions are implemented after a consensus is arrived at.
- There is a centralized research committee with Advisor , Principal to overview all R & D related activities at departmental and institutional level.
- Maintenance of all buildings and other infrastructure is entrusted to GM (facilities) and maintenance team.
- Physical director and Assistant Physical director attend to all sports activities of boys and girls.
- Technicians in all departments look after the repair and maintenance of lab equipment under the supervision of the teaching staff.
- HOD and senior faculty of each Department look after the teaching and learning process in each Department.

## **b) Quality assurance for academic programmes**

### **Performance Monitoring**

- Right from the time of admission, performance of every student is carefully monitored. Based on the examination results, faculty advisors take up counseling of poor performers and try to assess the reasons for their poor performance. HOD's arrange special classes for poor performers.
- Periodic meetings are conducted by the Principal and HODs to review the results of internal and external examinations.
- The analysis of the results of end semester examinations is carried out, and further discussed by HOD with the Principal.
- Teaching staff members guide the students in their projects, monitor their performance and counsel them regarding their performance, apart from regular teaching. Thus, teachers play different roles like project guides, mentors , etc.
- This process ensures the quality of the teaching process.

### **Administration**

- Academic Coordinators and Class advisers closely monitor student performance and intimate the parents.

#### **Student evaluation**

- At college level two unit tests / two cycle tests and one model exam are conducted for internal evaluation. The university conducts the end semester examination.
- Evaluation procedure & guidelines are given to the staff for both theory & practical exams. Corrected answer scripts of internal exam are shown to the students. Students are encouraged to express their doubts and irregularities observed, if any, in the evaluation, to the notice of concerned teachers, and to HOD, if necessary. The results are monitored by the HOD.

## **c) Quality assurance for administration**

- The college is ISO certified Institution
- The College is NAAC accredited with 'A' Grade having 3.24 in 4 point scale. Top scorer of Engineering education in 2009 in TN.
- 5 UG courses are NBA accredited. Remaining 3 UG courses have applied for NBA accreditation.
- Enhanced placement record.
- Improvement in faculty expertise leading to qualified faculty.
- Provides opportunities to non teaching staff to enhance their skills and qualifications.

## **d. Innovations in Research and Development and Extension**

- Research committee overviews the R & D activities in the college.
- R & D labs are established in each department.
- Inter-departmental research projects are encouraged.

**e. National Events**

- Several state level events like seminars, workshops are conducted for students and faculty in order to update their knowledge.

**f. Modern ICT Tools**

- For effective teaching-learning process, e - content, modern ICT tools such as LCD projector, etc. are made use of.

**g. Installation of latest configuration computers**

- The systems with old configuration were replaced by the systems with latest configuration. Majority of the computers are P IV with Dual Core processors.

**h. Students' exposure to industries**

- The students go on frequent visits to different industries related to their branch so that they can observe the processes taking place there. This provides greater awareness and clarity on the concepts and techniques they learn in the classrooms.

**i. Industry Institute Interaction**

- The following points are considered for formulating the policies on Industry-Institute Interaction

**Industries role in curriculum assessment**

Program assessment committee is formed by each department in collaboration with industries for assessment . The suggestions made therein are presented at the Board of Studies of the university.

**Consultancy and Extension Lectures**

- The College provides all the necessary facilities for consultancy work at institute level.
- Guest lectures by eminent personalities / industrialists are arranged for the benefit of students and Staff members.

**Continuing education and Industrial Internship**

- College organizes Guest Lectures by industry experts / eminent personalities on latest technologies.
- Professional Society membership is made obligatory to all faculty members of the college.

**Industrial Visits and Industrial Training**

- Local Industrial Visits are arranged for II/III/IV year students by obtaining permission from industries.
- Industrial Training is arranged for III year students during summer.

## **Project Work**

- Students are encouraged to take up Industry related projects. The college has entered into MOUs with the various industries

## **Placement**

- A training and placement cell is established with necessary infrastructural facilities for providing training and placement assistance to students.

## **I. Learner Centered Teaching**

The College adopts a mix of different methods of teaching like interactive, discussion based, project based and seminars to supplement the normal lecture method, depending on the nature of the content of instruction.

### **Lecture Method:**

The lecture method is used to the extent of 60 to 75 % to explain abstract and conceptual parts of the subject which demand critical thinking and analysis. Teacher presents the relevant data and diagrams through power point / chalk-board mode.

### **Interactive Method:**

The lecture method of teaching is supplemented with “discussion and interactive method” wherever needed.

### **Project-based learning**

This method is mostly used for self learning to improve the learning ability of student and to reinforce knowledge received during the lecture. Being a technical College, this method is extensively used to provide practical evidence of the theory learned. Students are asked to prepare projects with a clear concept of the principles learned. The teacher guides the students at various stages of developing the project, further gives timely inputs during the preparation of the project work. The methodology helps the students for bring accolades in various design competitions, publications in symposium and conferences.

### **Seminar Method:**

From time to time, the teacher involves the active students into the seminar method. A student is advised to come prepared on an assigned topic and present a seminar before the faculty and students. This method makes the student to undertake extensive reading and preparation, further; helps to improve the student’s communication and presentation skills.

### **Computer –Assisted Learning (CAL):**

Computer-assisted Learning is a very effective method in teaching and learning process. It involves visualizing, analyzing and understanding complex topics and interpretation of large data and is extensively put in practice in this college.

### **Other innovations that impacted the functioning of the college**

- The College functions as per its Quality document which covers all the areas of the college, to ensure transparency.
- The college forms various CELLS and COMMITTEES for implementation of curricular, co-curricular and extra-curricular activities.
- College Magazine, Handbook, Yearbook, Annual Newsletter, Brochure, Department magazine, etc. are brought out.
- Program assessment committee, Students exit feedback, Course end survey, Program outcome assessment, Alumni survey, Faculty self appraisal report, Internal test analysis, University result analysis, Semesterwise feedback of teachers lead to the improvement of teaching learning process

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

Respective actions are taken against all the plan of action in all functioning systems on the regular basis

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

**Goal of this practice:**

The goal of this practice is to impart practical exposure to students in upcoming technologies by conducting workshops, guest lectures and seminars by internal and external academicians / industrialists and through industrial visits.

**The Process:**

The students are expected to be strong in academics and have good industrial exposure. They are encouraged to update their knowledge with latest developments in their respective disciplines and allied subjects.

- In addition to good academic record, the students need to develop leadership qualities and good communication skills and soft skills. In this aspect, eminent personalities from various reputed institutes and industries are invited to impart the practical exposure to the students through workshops, seminars, guest lectures, etc.
- Also, the students are motivated to share their ideas with the outside world by presenting their research work in National / International conferences.
- The students are monitored regularly by class committee meetings and conduct of remedial classes where necessary.
- Regular tests on GATE and other competitive exams are conducted by the college.
- To gain industrial knowledge, the students are encouraged to visit the industries.

**Impact of the practice:**

The morale of the students is thus increased due to the expertise training and measures taken by the college. There is recognition and appreciation by the students and they are actively participating in all the programs. As the outcome, discernible positive change has been observed in them.

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

**7.4 Contribution to environmental awareness / protection**

Velammal Engineering College, Chennai is located at Surapet a popular town near ambattur in Thiruvallur district in Tamil nadu. A tranquil world in itself, the campus stands unique with its lush green expanse, paved pathways and a serene, soothing environment. Our strategic plans for development have always been driven by a love for nature and sustainability of important resources like energy, water, green cover etc since the campus is located in the banks of puzhal lake.

7.5 Whether environmental audit was conducted? Yes  No

**7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)****Strengths:**

- Qualified and experienced faculty
- High Faculty Retention
- Active participation of faculty in research activities
- Well equipped and spacious laboratories.
- State-of-Art equipment
- Good interaction with professional bodies

**Weaknesses:**

- No autonomy in syllabus usage
- Lack of interdisciplinary Projects
- Lack of Patents
- Lack of Consultancy

**Opportunities:**

- Skill-set required by the leading MNC's and Public sector and intense training in soft skills and personality development by T & P Cell and association with alumni grabs the opportunities to make the students industry ready.
- Amicable management with generous attitude in the form of lucrative special pays and incentives with additional perks and allowances to attract highly qualified and efficient and veteran faculty.

**Constraints:**

- Students with diverse background
- Constant changes to technology
- Balancing administrative and academic load
- Adapting to changing student expectations

**8. Plans of institution for next year**

- To achieve within top 5 position in Affiliated colleges of Anna University
- 100% Result and Placement
- Centre of Excellence
- Good Number of University Ranks
- To enhance the employability skills of students
- Increased R&D activities

Name \_\_\_\_\_

Name \_\_\_\_\_

\_\_\_\_\_  
Signature of the Coordinator, IQAC

\_\_\_\_\_  
Signature of the Chairperson, IQAC

\_\_\_\_\_\*\*\*\_\_\_\_\_

**Annexure I**

**Abbreviations:**

- CAS - Career Advanced Scheme
- CAT - Common Admission Test
- CBCS - Choice Based Credit System
- CE - Centre for Excellence
- COP - Career Oriented Programme
- CPE - College with Potential for Excellence

DPE	-	Department with Potential for Excellence
GATE	-	Graduate Aptitude Test
NET	-	National Eligibility Test
PEI	-	Physical Education Institution
SAP	-	Special Assistance Programme
SF	-	Self Financing
SLET	-	State Level Eligibility Test
TEI	-	Teacher Education Institution
UPE	-	University with Potential Excellence
UPSC	-	Union Public Service Commission

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