

## 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 2013-14)

2014 - 2015

### 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 – 600 066

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. MHCOGN 18879)

TNCOGN13954

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:

www.velammal.edu.in

Web-link of the AQAR:

<http://www.velammal.edu.in/pdf/AQAR-14-15 AAC-2014-15.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

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

07-08-2010

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

AQAR 2011 – 12 submitted to NAAC on 29-09-2012

AQAR\_2012– 13 submitted to NAAC on 24-12-2013

1.9 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

1.10 Type of Faculty/Programme

Arts  Science  Commerce  Law  TEI (Phys Edu)

TEI (Edu)  Engineering  Health Science  Management

Others (Specify)

-

1.11 Name of the Affiliating University (for the Colleges)

Anna University, Chennai

1.12 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 (*Speci*

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

02

2.11 No. of meetings with various stakeholders: 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

National Board of Accreditation, Workshop of spoken tutorial, ISO, New Strategic Plan

2.14 Significant Activities and contributions made by IQAC

Taken efforts to improve the quality of teaching by involving students and faculty to refer lecturers from NPTEL, Spoken tutorial softwares learning etc.

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	ECE, CSE,IT, E&I, Mechanical departments have uploaded eSAR and team visit is expected by the end of 2015
New strategic plan to improve the quality of teaching, research and enhancing the quality of engineering education in VEC	New strategic plan was endorsed by the management for approval and action

\* Annexure – 1- Academic calendar

2.15 Whether the AQAR was placed in statutory body Yes  No   
 Management  Syndicate  Any other body

Provide the details of the action taken

The activities are well supported by the management.

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				
PG	9	Nil	9	18
UG	9	Nil	9	
PG Diploma		-	-	-
Advanced Diploma		-	-	-
Diploma		-	-	-
Certificate		-	-	-
Others		-	-	-
<b>Total</b>	18	-	18	-

Interdisciplinary				
Innovative				

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

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	18
Trimester	
Annual	

1.3 Feedback from stakeholders\* Alumni  Parents  Employers  Students

(On all aspects)

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

\*Annexure – 2 – Student Feedback – sample format

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

Done regularly by the Affiliating University and some of our faculty are involved

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

No



Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
277	249	02	26	

2.2 No. of permanent faculty with Ph.D.

34
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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
2	-	-	2	-	-	-	-	2	2

2.4 No. of Guest and Visiting faculty and Temporary faculty

18	1	0
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2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	12	24	
Presented papers	95	53	23
Resource Persons	8	10	5

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

Group discussion, Seminars, Quiz, NPTEL lectures, Spoken tutorial, Regular conduction of guest lectures, Industrial visits, Video lectures, Anna University Edu-Sat, E-learning facilities
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2.7 Total No. of actual teaching days

220
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during this academic year

2.8 Examination/Evaluation Reforms initiated by

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

the Institution (for example: Open Book Examination, Bar Coding,  
Double Valuation, Photocopy, Online Multiple Choice Questions)

2.9 No. of faculty members involved in curriculum

10

Restructuring/revision/syllabus development

as member of Board of Study/Faculty/Curriculum Development workshop

2.10 Average percentage of attendance of students

90.72

2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Total no. of students appeared	Division (No. of students)				
		Distinction	I	II	III	Pass %
B.E (CIVIL)	132	4	80	21	-	79.55
B.E (MECH)	141	38	73	21	-	93.61
B.E.(EEE)	119	15	90	14	-	85.6
B.E (ECE)	117	17	86	7	6	94.87
B.E.(CSE)	127	13	91	10	-	89.76
B.Tech (IT)	122	34	35	28	3	81
B.E. (E&I)	125	11	80	9	-	80
B.E. (PROD.)	67	03	50	3	-	83.6
M.E. (ICE)	13	3	8	2	-	100
M.E. (PSE)	18	2	16	-	-	100
M.E. (A.E)	17	2	15	-	-	100
M.E.(CSE)	18	1	15	-	-	89
M.E.(M&PC)	13	8	5	-	-	100
M.E.(EST)	18	11	7	-	-	100

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

Velammal Engineering College has a well-established policy for Quality Assurance that was achieved through Internal Quality Assurance Cell.

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 critique 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

<b>Faculty / Staff Development Programmes</b>	<b>Number of faculty benefitted</b>
Refresher courses	18
UGC – Faculty Improvement Programme	9
HRD programmes (Faculty Induction Program)	1
Orientation programmes	10
Faculty exchange programme	-
Staff training conducted by the university	46
Staff training conducted by other institutions	54
Summer / Winter schools, Workshops, etc.	68
Others	16

#### 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	109	-	5	-
Technical Staff	53	-	2	-

### 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	4	5	2	7
Outlay in Rs. Lakhs	42.10	80.89	35.35	41

##### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	4	-	3	5
Outlay in Rs. Lakhs	7.4	-	3.1	16.8

##### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	118	4	
Non-Peer Review Journals	8	1	
e-Journals	4	3	
Conference proceedings	112	56	

##### 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	DST, AICTE- RPS	116.15 L	79.1 L
Minor Projects	15 days to 1 year	AICTE, IEI, Institute of Engineers	6.2 L	3.1 L
Interdisciplinary Projects				
Industry sponsored	6 months	Borg Scientific Company	1.5 L	
Projects sponsored by the University/ College				
Students research projects (other than compulsory by the University)	All students from II and III year of respective branches are motivated and guided to do mini / research projects apart from their curriculum and a expo is also kept during the National level Technical Symposium			
Any other(Specify)				
Total			188.5 L	82.2 L

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 StarScheme

INSPIRE CE DST, AICTE,DAE 

3.10 Revenue generated through consultancy

(for the last four years)

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	1	7	1		
Sponsoring agencies	Springer, AISC	BRNS, IEEE			

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 – Nil-

Type of Patent		Number
National	Applied	4
	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
7	-			SRM, Anna University		

3.18 No. of faculty from the Institution

who are Ph. D. Guides

15

and students registered under them

37

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

4

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

JRF

2

SRF

8

Project Fellows

Any other

3.21 No. of students Participated in NSS events:

University level

71

State level

50

National level

25

International level

-

3.22 No. of students participated in NCC events:

University level

14

State level

57

National level

5

International level

3.23 No. of Awards won in NSS:

University level

1

State level

-

National level

-

International level

-

3.24 No. of Awards won in NCC:

University level

2

State level

12

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

- i) Organized Blood donation camp at VEC campus.
- ii) Organizing donation of stationeries for poor children from students

**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	94	-		
Laboratories	56	-		
Seminar Halls	3	-		
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	8			
Value of the equipment purchased during the year (Rs. in Lakhs)	50.52 Lakhs			
Others				



#### 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.

#### 4.3 Library services: 2014-15

	Existing (2013-14)		Newly added (2014-15)		Total	
	No.	Value	No.	Value	No.	Value
Text Books Reference Books e-Books	70546	1,99,98,902	1870	8,45,327	72,416	2,08,44,229
Journals	149	6,25,119	149	4,24,094	149	10,49,213
e-Journals Digital Database CD & Video Others (specify)	8594	6,39,560	9000	7,37,330	9000	13,76,890

#### 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 up gradation (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 :

4.77 Lakhs

i) ICT

ii) Campus Infrastructure and facilities

400 Lakhs

**iii) ICT & Equipments**

32.95 Lakhs

iv) Others

2.44Lakhs

Total :

440.16Lak

## **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 writing 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
4426	298	-	-

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

91

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

0

Men

No	%
3176	67

Women

No	%
1548	33%

Last Year						This Year					
General	SC	ST	OB C	Physically Challenged	Total	General	SC	ST	OB C	Physically Challenged	Total
-	457	23	4782	-	4782		553	22	4149	1	4724

Demand ratio - 95%

Dropout % - less than 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

100

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 counsellor at institute level is appointed. A separate career guidance cell is organized and run by training and placement department.

No. of students benefitted

**5.7 Details of campus placement**

On campus			Off Campus
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
121	762	686	

5.8 Details of gender sensitization programmes: 1 (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 Managements

##### 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 models

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
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	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.

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

<input checked="" type="checkbox"/>	<input type="checkbox"/>
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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

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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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