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)

2015-16

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 6005

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)

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://velammal.edu.in/pdf/AQAR15-16.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	1st Cycle	A	3.27	2009	5
2	2nd Cycle	A	3.07	2016	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 2010-11submitted to NAAC on 12-10-2011)*

AQAR 2015 – 16 submitted to NAAC at present after the latest assessment and acceditation

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 ☐ PEI (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-Special Assistance Programme [ ] DST-FIST [Yes (Mechnaical)]

UGC-Innovative PG programmes [ ] other (*Specify*) [ ]

UGC-COP Programmes [ ]

2. IQAC Composition and Activities

2.1 No. of Teachers [14]

2.2 No. of Administrative/Technical staff [02]

2.3 No. of students [02]

2.4 No. of Management representatives [01]

2.5 No. of Alumni   02

2.6 No. of any other stakeholder and community representatives   01

2.7 No. of Employers/ Industrialists   01

2.8 No. of other External Experts   01

2.9 Total No. of members   24

2.10 No. of IQAC meetings held   02

2.11 No. of meetings with various stakeholders: Faculty   2

        Non-Teaching Staff Students   2   Alumni   1   Others   2

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   02

    (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 for NPTEL lectures, to learn Open Source Softwares from Spoken Tutorial Team from IIT Bombay, Workshop of effective teaching – Instruction Delivery System (IDS) following Bloom's taxonomy, Dale's Cone method 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	The department of ECE, EIE & CSE have acquired three years accreditation. The NAAC peer team visited the institution from 25th to 27th February 2016 and accredited with a CGPA of 3.07 on a 4 point scale with A grade valid over a period of five years.
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 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

> 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	04			
PG	08			
UG	09			10
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
Total				

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 (UG+PG)
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.

> ----

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of
permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
227	186	19	23	-

2.2 No. of permanent faculty with Ph.D.

> 53

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
23	5	9	2	4	1	-	-	36	**8**

2.4 No. of Guest and Visiting faculty and Temporary faculty

> 20   -   -

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	77	39	
Presented papers	82	55	25
Resource Persons	07	07	11

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

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

> 180

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

> 3sets for Unit Test, 2sets for Cycle
> Tests and model examination.
> Photocopy of university answer script
> is provided by the university for the
> required students.

2.9 No. of faculty members involved in curriculum

> 6

restructuring/revision/syllabus development

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

2.10 Average percentage of attendance of students   95%

2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Total no. of students appeared	Division			
		Distinction %	I %	II %	Pass %
UG Results					
B.E (Automobile)	63	8	75	17	89
B.E (Civil)	127	7.87	66.14	10.23	51
B.E (CSE)	190	8.42	54.21	5.78	82.6
B.E (EEE)	134	11.94	73.13	3.73	89.55
B.E (ECE)	203	20.19	68	01	89.65
B.E (EIE)	120	6.6	74.16	3.3	84.16
B.E (Mech)	201	5.47	78.61	4.98	89.05
B.E (Production)	64	1.5	79.68	6.25	87.5
B.Tech (IT)	120	3.33	78.33	13.33	95
PG Results					
M.E (CSE)	15	2.66	73.34	-	100
M.E (C&I)	14	0	100	0	100
M.E(Applied Electronics)	9	44	56	-	100
M.E (PSE)	18	11	89	-	100
M.E (IC Engines)	13	23.07	61.53	0	84.61
M.E (EST)	11	27	73	-	100
M.E (Const.Engg &Mgmt)	13	6	7	-	100
M.B.A	43	2	31	9	97.6

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 abosoute freedom to crique 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

Faculty / Staff Development Programmes	*Number of faculty benefitted*
Refresher courses	10
UGC – Faculty Improvement Programme	9
HRD programmes	**0**
Orientation programmes	10
Faculty exchange programme	0
Staff training conducted by the university	10
Staff training conducted by other institutions	32
Summer / Winter schools, Workshops, etc.	73
Others	29

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	08	-	-	-
Technical Staff	46	01	07	-

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	3	6	3	14
Outlay in Rs. Lakhs	51	55.3	62.5	104

3.3   Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number		4		
Outlay in Rs. Lakhs		0.6		

3.4   Details on research publications

	International	National	Others
Peer Review Journals	49	01	
Non-Peer Review Journals	24	-	
e-Journals	02	-	
Conference proceedings	72	53	

3.5 Details on Impact factor of publications:

Range [0.15 – 2.1]   Average [1.8]   h-index [32]   Nos. in SCOPUS [87]

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	31.5.2010-28.2.2013	DRDO	Rs.13.49 lakhs	Rs.13.49 lakhs
	Jan 2010 – April 2012	AICTE - MODROB	14.27 lakhs	14.27 lakhs
	August 2015 – 2018	DST	28 Lakhs	-
Minor Projects	2015-2016	Institution of Engineers (India)	Rs.20,000	Rs.20,000
	2015-2016	Institution of Engineers (India)	Rs.10,000	Rs.10,000
	1 year	IEI	0.20	0.20
	6 month	IEI	0.10	0.10
Interdisciplinary Projects				

Industry sponsored				
Projects sponsored by the University/ College				
Students research projects *(other than compulsory by the University)*				
Any other(Specify)				
Total				

3.7 No. of books published   i) With ISBN No.   12   Chapters in Edited Books   1

ii) Without ISBN No.   02

3.8 No. of University Departments receiving funds from

UGC-SAP [ ]   CAS [ ]   DST-FIST   1

DPE [ ]   DBT Scheme/funds [ ]

3.9 For colleges   Autonomy [ ]   CPE [ ]   DBT Star Scheme [ ]

INSPIRE [ ]   CE [ ]   Any Other (specify) [ ]

3.10 Revenue generated through consultancy   2,09,000

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	1	9			
Sponsoring agencies		BRNS & Industry			

3.12 No. of faculty served as experts, chairpersons or resource persons   42

3.13 No. of collaborations   International [ ]   National   2   Any other [ ]

3.14 No. of linkages created during this year   2

3.15 Total budget for research for current year in lakhs :

From Funding agency   38.6   From Management of University/College   16

Total   54.6

Type of Patent		Number
National	Applied	1

3.16 No. of patents received this year

	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
10	2	1	2	3	2	-

3.18 No. of faculty from the Institution
     who are Ph. D. Guides   23
     and students registered under them   82

3.19 No. of Ph.D. awarded by faculty from the Institution   02

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 9   State level 47

National level 15   International level

3.22 No. of students participated in NCC events:

University level 13   State level 11

National level 23   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   State level 1

National level   International level

3.25 No. of Extension activities organized

University forum [ ]   College forum [ ]

NCC [6]   NSS [3]   Any other [ ]

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

- International yoga day celebrations on 21st June 2015
- Condolence for Dr.A.P.J. Abdul Kalam on 28th July 2015
- Independence day parade – 15th August 2015
- Coastal clean up on 21st September 2015
- Ship visit – INS RANVIJAY on 11th October 2015
- Inter group competitions – Athletics and Hockey- Won 1st Prize
- Warship Visit – INS SHAKTHI
- Helmet Awareness Rally
- Combined annual training camp
- Republic Day parade
- Republic day CM-Rally
- Weapon Training camp

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	19.76
Class rooms	94+3			72
Laboratories	56			49
Seminar Halls	5			5
No. of important equipments purchased (≥ 1-0 lakh) during the current year.	46	8	Management	54
Value of the equipment purchased during the year (Rs. in Lakhs)	53.05	26.7	Management	79.75
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:

	Existing 2014-15		Newly added 2015-16		Total	
	No.	Value	No.	Value	No.	Value
Text Books	67883	18916937	1290	538881	69173	19455818
Reference Books	4669	2334500	63	31500	4732	236600
e-Books	-	-	-	-	-	-
Journals	2764	4236903	174	471832	2924	4708735
e-Journals	8954 +	5502926	9500+	913174	9500+	6416100
Digital Database	272	50000	-	-	272	50000
CD & Video	2495	-	139			2634

Others (specify) Xerox machine and Furniture, etc	1013041	67750	1080791

4.4 Technology up gradation

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Depart-ments	Others
Existing	1190	13	All	3	6	20	87	NIL
Added	35	1	1	1	-	-	-	-
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.)

RAM Upgraded to 8Gb

OFC Communication is established
100 MBPS Speed Internet is provided

4.6 Amount spent on maintenance in lakhs :

   i) ICT   0.75 Crores

  ii) Campus Infrastructure and facilities   2.63 Crores

 iii) Equipments   1.06 Crores

 iv) Others   1.43 Crores

                        Total :   4.87 Crores

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
4626	250	-	-

(b) No. of students outside the state

-

(c) No. of international students

-

Men

No	%
3163	66

Women

No	%
1552	34

Last Year (2014-2015)						This Year(2015-2016)					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
3888	571	22	369	02	4855	3857	610	19	389	01	4876

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   100

5.5 No. of students qualified in these examinations

NET [ ]   SET/SLET [ ]   GATE [13]   CAT [12]

IAS/IPS etc [ ]   State PSC [ ]   UPSC [ ]   Others [24]

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

132

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
207	808	421	63

5.8 Details of gender sensitization programmes

1. 19.8.15-women empowerment cell-Independance day celebration

2. 26.9.15-Self defence programme for girls

5.9 Students Activities

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

State/ University level 80   National level 7   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 15   National level 5   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 | 8 | National level | 8 | International level | |

Exhibition: State/ University level | 5 | National level | 5 | International level | |

5.12   No. of social initiatives undertaken by the students | 5 |

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

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~~

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

Regulary 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

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.

> 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.

- 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 id NAAC accreditated 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.

l. 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.
- Thecollege 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

****