



## Yearly Status Report - 2019-2020

### Part A

#### Data of the Institution

<b>1. Name of the Institution</b>		VIMAL JYOTHI ENGINEERING COLLEGE
Name of the head of the Institution		BENNY JOSEPH
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		04602-213399
Mobile no.		9048292767
Registered Email		principal@vjec.ac.in
Alternate Email		bennyjoseph@vjec.ac.in
Address		Jyothi Nagar, Chemperi
City/Town		Kannur
State/UT		Kerala
Pincode		670632
<b>2. Institutional Status</b>		

Affiliated / Constituent	Affiliated
Type of Institution	Co-education
Location	Rural
Financial Status	Self financed
Name of the IQAC co-ordinator/Director	Dr.D.Anto Sahaya Dhas
Phone no/Alternate Phone no.	04602213399
Mobile no.	9486747931
Registered Email	dr.anto@vjec.ac.in
Alternate Email	anto5751@gmail.com

### 3. Website Address

Web-link of the AQAR: (Previous Academic Year)	<a href="http://vjec.ac.in/about/naac/">http://vjec.ac.in/about/naac/</a>
<b>4. Whether Academic Calendar prepared during the year</b>	Yes
if yes,whether it is uploaded in the institutional website: Weblink :	<a href="http://vjec.ac.in/campus/notice-board/#collapse8">http://vjec.ac.in/campus/notice-board/#collapse8</a>

### 5. Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity	
				Period From	Period To
1	B+	2.67	2019	28-Mar-2019	27-Mar-2024

### 6. Date of Establishment of IQAC

28-Jun-2018

### 7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Emerging Areas in Nanomaterials and its Application	24-Jun-2019 5	25
Emerging Areas on	25-May-2020	182

Manufacturing	5	
Nanocomposites and Nanomaterials & it's Characterization	08-Jun-2020 14	66
Entrepreneurship and future trends in Engineering	18-Feb-2020 1	58
Webinar on funding projects, consultancies and book writing	08-Jul-2020 1	152
C Programming Workshop	21-Jan-2020 3	56
Android workshop	04-Mar-2020 2	56
IoT Workshop-2K19	24-Oct-2019 2	10
Webinar on Real Time operating System	08-May-2020 1	56

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**8. Provide the list of funds by Central/ State Government- UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.**

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Dr.D.Anto Sahaya Dhas	AQIS	AICTE	2019 14	617000
Dr.Glan Devadhas	AQIS	AICTE	2019 6	325000
Anoop BK	FDP	KTU	2019 5	181000
Dr.R.Senthilkumar	ANERT	ANERT	2019 365	172266
Dr.Sampath Kumar	CERD	KTU	2019 365	156000
Dr.Sampath Kumar, Vidhya	UBA	UBA	2019 180	100000
Dr.Sampath Kumar, Dr.Shika, Theres Charly	UBA	UBA	2019 180	100000

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**9. Whether composition of IQAC as per latest NAAC guidelines:**

Yes

Upload latest notification of formation of IQAC	<a href="#">View Link</a>
<b>10. Number of IQAC meetings held during the year :</b>	4
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	<a href="#">View Uploaded File</a>
<b>11. Whether IQAC received funding from any of the funding agency to support its activities during the year?</b>	No
<b>12. Significant contributions made by IQAC during the current year(maximum five bullets)</b>	
<p>Under the initiative of ASAP, our college is selected for setting up an advanced skill development center known as ASDC. Under this, a certification course on "Artificial Intelligence Machine learning" is introduced in our college for our students of all branches. All students went for an industrial visit for reducing the gap between curriculum and Industry. Kerala State Information Technology Infrastructure Limited, Govt. of Kerala funded high tech class room was established for imparting skills. Our college signed an MOA with KSITIL on 30 November 2018 for setting up the classroom. Regular skill courses are arranged for all branches to upgrade the skill level of our students.</p>	
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<b>13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year</b>	
Plan of Action	Achivements/Outcomes
Focus in placement activities	Increased placement
Helping Flood Affected People	In August and September of 2018, the Vimal Jyothi Engineering College students travelled all around the state and helped the flood affected area people. Vimal Jyothi Engineering College staff and Students collected nearly 10 Lakh rupees for the relief activities.
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<b>14. Whether AQAR was placed before statutory body ?</b>	No
<b>15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to</b>	No

assess the functioning ?	
<b>16. Whether institutional data submitted to AISHE:</b>	Yes
Year of Submission	2020
Date of Submission	30-Jun-2020
<b>17. Does the Institution have Management Information System ?</b>	Yes
If yes, give a brief description and a list of modules currently operational (maximum 500 words)	<p>Heraizen Technology Pvt Ltd supports the campus management systems of Vimal Jyothi Engineering College. The software has the following innovative features. Automation Performance Dashboards. College performance planning and tracking based on faculty/student performance. Automation towards NBA preparedness and accreditation. Dashboards with descriptive, prescriptive and predictive analysis. Capability improvement of students faculty Automatic Report Generation Student Faculty feedback, enabling them to focus on strengths and improvement areas. Customization and mobility.. It enhances the capability performance of Students and Faculty thus achieving Continuous Improvement Innovation. Based on Bloom's Taxonomy, the System also comes with a creative quotient for every student to leverage their unique abilities. This model is an innovative way of tracking student performance and has builtin intelligence and analytics for student centric approach based on the concept of outcome based education. The System drives collaboration among students, faculty, management and parents to bring in action based performance improvement.</p>

## Part B

### **CRITERION I – CURRICULAR ASPECTS**

#### **1.1 – Curriculum Planning and Implementation**

1.1.1 – Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

1. Subject/course allocation based on faculty preference, competence /experience, and university syllabus is done through a formal staff meeting chaired by HoD well before the semester starts. 2. Academic calendar, semester

plan, and time table are circulated and assessment plans and lesson plans are prepared accordingly. 3. An online campus management system (CMS) is used to assist in implementing major curriculum activities. 4. The lesson plan is prepared with well-defined course outcomes, subject notes, learning materials like PPTs, and manuals for conducting laboratory experiments. 5. Course team meetings are conducted in the presence of the Principal, HoD, and faculty members handling respective classes to check the preparedness for the next semester and contents of the course file which include lesson plans, previous year university question papers, a module-wise question bank, internal assessment question papers, and assignments. Google classrooms are configured for each subject by the faculty. Resources needed for effective teaching and learning are made available. 6. Course Outcome - Program Outcome (CO-PO) and Course Outcome - Program Specific Outcome (CO-PSO) for each subject are mapped. 7. Content beyond the syllabus to cover the curriculum gap is mentioned in the course file and is handled by the faculty members/ External experts from Industry/Academia. 8. Course delivery as per lesson plan and completion of the syllabus are monitored by HoD. 9. Class committee meetings and course committee meetings for students are conducted every semester before the internal exams. 10. Continuous assessment for laboratory work is done based on viva questions and real-time performance through well-defined rubrics. 11. Value-added programs are delivered by the faculty members/ external experts in each semester. 12. Bridge courses are organized and conducted for students to get an in-depth understanding of the topics. 13. The honor program as per the curriculum is conducted for eligible students. 14. Booster/Remedial classes are provided for academically weak students. 15. To maintain quality, the internal exam question papers are approved by IQAC members and HoD before sending it to the exam cell. 16. Student's feedback is taken twice in the semester for the teaching-learning process for every semester. 17. PTA meetings are called class-wise after the result analysis of the first internal assessment to discuss students' academic progress and other matters. 18. Progress reports for the internal exams are dispatched to the parents to apprise them about their wards' performance. 19. Course files prepared by the faculty members are audited by KTU internal and external auditors at least twice in a semester. 20. At the end of the semester, faculty members prepare a subject report (Report by Faculty) which in turn will act as feedback to the faculty handling the subject in the next academic year. 21. Classes are made available through online platforms such as Youtube for certain subjects. 22. Digital library equipped with e-books is available to both students and faculty members. 23. Each department has its own department libraries to support the students and faculties in the department.

#### 1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entrepreneurship	Skill Development
<b>No Data Entered/Not Applicable !!!</b>					

### 1.2 – Academic Flexibility

#### 1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
<b>No Data Entered/Not Applicable !!!</b>		
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#### 1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting	Programme Specialization	Date of implementation of
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CBCS		CBCS/Elective Course System
<b>No Data Entered/Not Applicable !!!</b>		

1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	0	0

**1.3 – Curriculum Enrichment**

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Skill Development Workshop on CNC Programming Operations of CNC Lathe from	02/07/2019	40
Invited talk on 'Civil service examinations	06/08/2019	120
Seminar on the topic 'Sustainable Development Goals' for final year students	27/09/2019	113
Invited talk on 'Entrepreneurship Journey' by Mr. M T P Mohammed Kunhi, Managing Director, Sulfex Mattress Company, Kannur	10/04/2019	113
seminar on 'Research Methodology' for final year Mechanical Engineering students	14/11/2019	113
workshop on 'supply chain operation simulation' for final year students	02/11/2019	113
workshop on 'Introduction to stress-strain analysis using FEM Software' for second year Mechanical Engineering students	16/11/2019	70
Online technical talk on "3D Printing Technology, Its Applications - FDM/FFF Parameters Explained" using Google Meet for third year Mechanical Engineering students	29/04/2020	110
workshop on CYCLE TEMPO, a software tool to design and analyze thermodynamic systems	07/03/2020	20

Webinar on 'Fundamentals of Computational Fluid Dynamics' for 4th semester Mechanical Engineering students	07/05/2020	70
<a href="#">View Uploaded File</a>		

### 1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BTech	Internship at Sysbreeze Technologies Kakkancherry	19
BTech	Internship at Matsyafed Net factory	5
BTech	Internship at Torc Infotech Kochi	8
BTech	Internship at KSRTC Kozhikode	8
BTech	Internship at Srishti Robotics	5
BTech	Internship at KSEB-Diesel power plant Calicut	2
BTech	Internship at Integral Coach Factory Chennai	2
BTech	Internship at Avon Engineering Mysuru	1
BTech	Internship at VKC International Pvt Ltd.	1
BTech	DESIGN AND ESTIMATION OF FOURTH PLATFORM OF KANNUR RAILWAY STATION	4
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### 1.4 – Feedback System

#### 1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	No
Alumni	Yes
Parents	Yes

#### 1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained
To improve the methods and techniques of teaching and the teaching environment, we should be aware of the limitations of our present methods and techniques. An efficiently implemented feedback system always helps in improving our current



ways. And our institution is among those who believe in the fact that a system which adapts and adjusts itself based on mistakes, is the only one that can survive and excel in its field. Feedbacks from different stakeholders of our institution are obtained, and on the thorough analysis of these suggestions and criticisms, we modify lesson planning, content beyond syllabus workshops, syllabus revisions, and placement training programs. The feedback system implemented is not only used for academic improvements, but these valuable suggestions are taken into account while designing plans for our overall infrastructure development. Alumni Survey An alumni meet is conducted on a yearly basis and we take it as an opportunity to know how well they were able to apply their engineering knowledge gained from our institution, in the real world. Students Feedback The sole purpose of any educational institution is its students. Their feedback is the most important one, as it's on them that we are applying all our methods and teaching techniques. They are the best one to tell what is good and what is not so efficient. During each semester, two online surveys are conducted, to evaluate the teachers. And three-class committee meetings are conducted that give the students an opportunity to raise any issues regarding a particular subject. And based on this feedback, it is decided whether or not to conduct special classes. Parents It's important to know what the parents think about the institution where their wards are studying. The better the relationship between the parents and the institutions, the more trust they would have on our vision and methods. The feedback from the parent is collected, each time a PTA meeting is held. In our institution, PTA meetings are conducted twice, during one semester.

## CRITERION II – TEACHING- LEARNING AND EVALUATION

### 2.1 – Student Enrolment and Profile

#### 2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
Mtech	Nill	108	25	22
BTech	Nill	540	579	403

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### 2.2 – Catering to Student Diversity

#### 2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2019	403	22	104	12	15

### 2.3 – Teaching - Learning Process

#### 2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
131	131	8	43	1	6

[View File of ICT Tools and resources](#)

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

The new process has been established as Mentoring System. Each faculty will be the mentor of a group of 20 to 25 students and each mentor shall meet the group of students at least twice a month. The focus of mentoring system is on continuous monitoring, counseling, guidance and motivating the students in all academic matters and non-academic activities.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
1615	87	1:19

**2.4 – Teacher Profile and Quality**

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
127	131	0	0	15

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2020	Laly James	Associate Professor	Outstanding Branch Counselor Award of IEEE Kerala Section
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**2.5 – Evaluation Process and Reforms**

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
Mtech	PG	S3	01/01/2020	29/05/2020
Mtech	PG	S1	03/01/2020	11/04/2020
BTech	UG	S7	03/01/2020	09/04/2020
BTech	UG	S5	06/01/2020	25/03/2020
BTech	UG	S3	08/01/2020	28/03/2020
BTech	UG	S1	19/12/2019	07/05/2020
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2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

- The evaluation process includes attendance, internal assessment marks, and assignment marks.
- The question paper pattern for the internal examinations has been standardized by the institution with the help of IQAC. The question paper pattern is similar to that of University question paper.
- The Institution follows the evaluation procedure prescribed by the affiliating

University. • The student's performance is evaluated with continuous assessment and end semester assessment. The evaluation weightage is 33.33 for continuous assessment tests and 66.66 for the end-semester. • Faculties prepare question papers and upload it in college ERP. Two level scrutinizing of the question paper done by the IQAC member and HOD and distributed to the students at the time of assessment by the exam cell. • Internal test answer books are returned within 10 days from the actual exam date. • Student marks are intimated to their parents through posts/sms. Also the marks of each subject is available in the Heraizen Technologies Pvt. Ltd. (<https://vjgroup.dhi-edu.com>) students portal which the parents can access using login ID and password. • Retests are conducted for students who fail to attend any one of the internal exams with a valid reason with proof. • The academic performance of the student and attendance of the student are maintained in each department through Heraizen Technologies Pvt. Ltd. which can be accessed by students, parents, and staffs. • PTA meeting is arranged every semester to discuss the progress of students in assessment test.

2.5.3 – Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

The academic calendar is prepared for every semester in line with University calendar, which provides the information on scheduled timetable for internal assessments, model examinations and the tentative schedule of University practical examinations in regard to this, the students can plan their studies accordingly • The academic calendar provides the date of commencement of the academic session, duration of semester, date of internal exams, internal assignment dates, final semester examinations, class committee etc. • The Lesson Plan is prepared by the faculties individually with details like Unit wise topics, number of teaching hours allocated for each Unit, and the mode of instruction based on the academic calendar. The time table is prepared well before starting of every semester to avoid any shortfall in syllabus coverage. • Syllabus completion is tracked through periodic checking of lesson plan sheets, class committee meetings, record of class work and Department meetings. Assessment plan which include issue date, submission date and return date of assignment is prepared based on academic calendar and the same will be configured in the ERP software

## 2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

<http://vjec.ac.in/departments/electronics&communication/>

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
UG	BTech	CE	108	101	93.52
UG	BTech	ME	113	113	100
UG	BTech	CSE	60	59	98.33
UG	BTech	ECE	57	57	100
UG	BTech	EEE	47	44	93.62
UG	BTech	AEI	16	16	100
PG	Mtech	M. Tech	19	19	100

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## 2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

<https://vjec.ac.in/downloads/Student%20Satisfactory%20Survey%20AY%202019-20.pdf>

## CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 – Resource Mobilization for Research

3.1.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Minor Projects	12	UnnatBharathA bhiyan	100000	100000
Minor Projects	365	ANERT , Trivandrum , Kerala	172266	172266
Projects sponsored by the University	365	APJAKTU - CERD - Research Seed Money Scheme	156000	156000

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### 3.2 – Innovation Ecosystem

3.2.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
IoT Workshop-2K19	Computer Science and Engineering	24/10/2020
Webinar on Real Time operating System	Electrical and Electronics	05/08/2020
Workshop on Hyper ledger Fabric	Computer Science and Engineering	07/03/2020
workshop on block chain technology	Computer Science and Engineering	15/02/2020
Basics of C Programming Workshop	Computer Science and Engineering	03/09/2019
Google Explore ML Workshop	Computer Science and Engineering	29/10/2019
Prelims of IoT Challenge 2020	Computer Science and Engineering	28/09/2019
C Programming Workshop	Computer Science and Engineering	21/01/2020
Android workshop	Electrical and Electronics	04/03/2020
workshop on industrial robotics	Mechanical Engineering	07/02/2020

workshop on Arduino programming	Electrical and Electronics	09/03/2019
Project Management Development -16-20 EEE	Mechanical Engineering	23/01/2020
Placement training by Sigmos India-16-20 EEE	Electrical and Electronics	13/01/2020
Electrical Power and Control' workshop conducted by Sigmos 16-20 and 17-21 batch EEE	Electrical and Electronics	01/07/2019
Webinar on Advanced Robotics and its Applications.	Mechanical Engineering	30/05/2020
Webinar on Industrial relevance of Mechanical Engineering	Mechanical Engineering	03/06/2020
Webinar on Opportunities in aerospace Industries	Mechanical Engineering	11/06/2020
Webinar on Pre-engineered building in smart cities	Civil Engineering	09/07/2020
Seminar on Placements(importance of Campus recruitment)	Mechanical Engineering	17/09/2019
Invited talk on Entrepreneurship and Future Trends in Engineering	Mechanical Engineering	17/09/2019
seminar on Professional Ethics	Mechanical Engineering	07/03/2020
Workshop on C	Computer Science and Engineering	22/02/2020
Skill Development Workshop on CNC Programming Operations of CNC Lathe from	Mechanical Engineering	02/07/2019
International Conference on Technology Convergence in Engineering, Energy and Sustainability (ICTCEES-2019)	Mechanical Engineering	11/07/2019
Workshop on Programming in C	Computer Science and Engineering	18/01/2020
Invited talk on hybrid parameters	Electronics and Communication	12/10/2019
Orientation program on IBM Global Certification Program	Electronics and Communication	10/10/2019
Two days' workshop on IoT	Electronics and Communication	25/08/2019

### 3.2.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Outstanding Engineer Award Kerala PES Chapter	Mr. Prabin James	IEEE PES Kerala Section	23/10/2019	IEEE PES Kerala Section
Continued performing outstanding student branch chapter	IEEE IAS SB, VJEC	IEEE IAS	08/05/2020	IEEE IAS
Outstanding Branch Counselor Award of IEEE Kerala Section	Prof.Laly James	IEEE Kerala Section	11/01/2020	IEEE

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### 3.2.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
<b>No Data Entered/Not Applicable !!!</b>					
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## 3.3 – Research Publications and Awards

### 3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
0	0	0

### 3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
Electronics and Communication Engineering	1

### 3.3.3 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Mechanical Engineering	5	0.28

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### 3.3.4 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Electrical and Electronics Engineering	1
Electronics and Communication Engineering	6
Civil Engineering	1

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3.3.5 – Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
"Design and development of new control technique for standalone PV System	G. Glan Devadhas	Elsevier Microprocessors and Microsystems	2020	2	VJEC	2
Optimization on Tribological Behaviour of Milled Nano-B4C Particles Reinforced with AZ91 Alloy Through Powder Metallurgy Method	S. Christopher Ezhil Singh	Transactions of Indian institute of metals	2019	1	VJEC	1
Extreme learning machine based classification for detecting micro-calcification in mammogram using multi scale features	Jayesh George	2019 International Conference on Computer Communication and Informatics (ICCCI)	2019	1	VJEC	1
ELM Based Detection of Micro calcification in Mammogram using GLCM	Jayesh George	International Journal of Recent Technology and Engineering	2019	2	VJEC	2

Features						
A Hybridized ELM for automatic micro calc ification detection in mammogram images based on m ulti-scale features	Jayesh George	Journal of medical systems	2019	6	VJEC	6
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### 3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
A Hybridized ELM for automatic micro calc ification detection in mammogram images based on m ulti-scale features	Jayesh George	Journal of medical systems	2020	4	6	VJEC
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### 3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	0	16	0	0
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## 3.4 – Extension Activities

### 3.4.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Snehathanal	NSS	3	50
Charity Pilgrim	NSS	3	70
flood relief Activities material transportation	NSS	3	5



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3.4.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
For the Project done by Raveena M, Megna Sudeep, Gopika R, Aswathy H S8 EEE (2016-20)	IAS Myron Zucker Undergraduate Student Design Contest	IEEE IAS	25
For the Project done by Abhay Rajan, Nikhil Baby, Shibin Sujith S8 EEE (2016-20)	Robotics Demonstration Contest	IEEE IAS	25

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3.4.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
NSS	NSS	Snehathanal	3	50
NSS	NSS	Charity Pilgrim	3	70
NSS	NSS	flood relief Activities material transportation	3	5

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### 3.5 – Collaborations

3.5.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
0	0	0	0

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3.5.2 – Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
It helps develop the career of the individual	internship training	SIGMOS India pvt limited	01/07/2019	05/07/2019	12

and the prosperous growth of the organization. On the job training is a form of training provided at the workplace					
To provide students a good opportunity to gain full awareness about industrial practices	Industrial visit	RAINBOW PVC PIPES, Karnataka	04/10/2019	08/10/2019	36
To build a connection with professional people which is really helpful for the students for their career in the future or for learning purpose and knowledge as well	Internship	INFOX technologies	03/07/2019	10/07/2019	27
To build a connection with professional people which is really helpful for the students for their career in the future or for learning purpose and knowledge as well	Internship	KELTRON	12/07/2019	19/07/2019	13
To build a connection with professional	Internship	CADD centre	19/07/2019	24/07/2019	30

people which is really helpful for the students for their career in the future or for learning purpose and knowledge as well					
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3.5.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
SIGMOS India Pvt Ltd.	28/01/2020	Placement oriented training for final year EEE students	40
Sulfex Mattress	04/10/2019	Industrial visits, Internships, Expert talks, support for project works research collaboration	70

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### CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
94794	603575

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Existing
Laboratories	Existing
Seminar Halls	Existing
Classrooms with LCD facilities	Existing
Seminar halls with ICT facilities	Existing
Video Centre	Existing

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#### 4.2 – Library as a Learning Resource

#### 4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
New GenLib	Fully	3.2	2002

#### 4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
CD & Video	3125	425000	125	25000	3250	450000
Weeding (hard & soft)	950	475000	150	75000	1100	550000
Text Books	26712	13356000	1110	620000	27822	13976000
Reference Books	1850	940000	30	15000	1880	955000
e-Books	6200	200000	50	35000	6250	235000

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#### 4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Dr.Benny Joseph	Environmental Engineering	LMS teachable	17/07/2019
Dr.Benny Joseph	Sustainable Engineering	LMS Teachable	03/10/2019

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### 4.3 – IT Infrastructure

#### 4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/ GBPS)	Others
Existing	703	12	150	4	1	26	97	150	0
Added	35	0	0	0	0	0	0	0	0
Total	738	12	150	4	1	26	97	150	0

#### 4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

150 MBPS/ GBPS
----------------

#### 4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
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LMS	<a href="http://lms.vjec.ac.in/">http://lms.vjec.ac.in/</a>
Teachable	<a href="https://vjec.teachable.com/">https://vjec.teachable.com/</a>

#### 4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
127	6839332	230	6035754

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

<p>The students and faculty of VJEC are actively utilizing the physical facilities like Laboratories, Classrooms, Library, hostel, play ground etc. The class room and other spaces available can be utilized as exam centre on holidays for Government Exams, GATE exams etc on holidays and vacation period. On summer vacation the motivational classes and skilled development courses are conducted for school students and other public. Daily cleaning of class room and open spaces are carried out by the house keeping people under the supervision of a maintenance supervisor. The maintenance department also takes care of the electrical, plumbing works, gardening with respective skilled technician. Regarding the laboratory at the end of every semester regular checkup of equipment is carried out. The minor repairs are carried out by the technical staff and faculty member as per the requirement. Major repairs of equipments are outsourced to the service centers. For Computer hardware/Network maintenance the procedure is as follows There is a report/status Google form Register the requirements for Maintenance/Repair The complaints registered are sending to respective person. The status is updated For Civil and Electrical maintenance the procedure is as follows: There is a report/status Google form Register the requirements for Maintenance/Repair The complaints registered are sending to respective person. The status is updated</p> <p style="text-align: center;"><a href="https://vjec.ac.in/about/naac/procedure-maintenance/">https://vjec.ac.in/about/naac/procedure-maintenance/</a></p>
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#### CRITERION V – STUDENT SUPPORT AND PROGRESSION

##### 5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Management Scholarship	55	4001042
Financial Support from Other Sources			
a) National	Central Sector/Merit/E-grant for SC, OEC	211	10236650
b) International	0	0	0
<a href="#">View File</a>			

5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability	Date of implementation	Number of students	Agencies involved
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enhancement scheme		enrolled	
Orientation on IBM Global Certification Program	10/10/2020	250	IBM
Webinar on IoT and 5G	13/05/2020	42	INVITED SPEAKER
Technical Talk	19/05/2019	42	INVITED SPEAKER
Talk on Entrepreneurship and future trends in engineering	18/02/2020	120	INVITED SPEAKER
Aptitude Training	24/06/2019	127	In-house trainers
TCS Specific Training	11/07/2019	42	Sixphrase
Boot Camp/Induction Training	24/06/2019	281	In-house trainers invited speakers
Wipro Specific Training	14/10/2019	134	Sixphrase
GATE Orientation Seminar	05/11/2019	48	GATE Academy, Kannur
<a href="#">View File</a>			

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2020	Gate coaching	14	0	0	0
2019	Gate coaching Civil	35	0	3	0
2020	Gate coaching Civil	25	0	0	0
2019	Gate coaching CSE	3	0	1	0
2020	Gate coaching CSE	4	0	1	0
<a href="#">View File</a>					

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal

1

1

4

**5.2 – Student Progression**

## 5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
TCS - Tata Consultancy Services	78	8	ODESSA, Bangalore	38	0
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## 5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
2020	9	Civil Engineering	Dept of CE	1. Vimal Jyothi Engineering College, Chempuri, Kannur 2. Manipal Institute of Technology, Manipal 3. MES College of Engineering, Kuttippuram 4. Christ University, Bangalore 5. NIT, Meghalaya	M.Tech
2020	3	Electronics and Communication	Dept. of ECE	Vimal Jyothi Engineering College (3 Nos), National Institute of electronics and Information Technology, Calicut (1), Govt. Engineering College, Idukki (1)	M.Tech
2019	3	Electrical and Electronics Engineering	Dept of EEE	Rajagiri School of Engineering, Kakkanadu, Government	M.Tech

				Engineering College Idukki, Government College of Engineering Kannur	
2020	1	Electrical and Electronics Engineering	Dept of EEE	Government Engineering College Idukki	M.Tech
2020	1	Computer Science and Engineering	Dept. of CSE	Govt. Engineering College Wayanad	M.Tech
<a href="#">View File</a>					

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GATE	2
GRE	2
<a href="#">View File</a>	

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
0	0	0
No file uploaded.		

### 5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
No Data Entered/Not Applicable !!!						
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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Student Council is a group of elected and volunteer students working together within the framework of a constitution or bylaws to provide a means for student expression and assistance in the institution affairs and activities, give opportunities for student experience in leadership and encourage student. A student council is a group of student leaders who work with an adult advisor to collaborate with others to impact their school community, which impacts their city or town, which impacts our state, which impacts our country, which changes the world. Cultural activities provide exposure to innate talents of students who can actively participate conduct cultural programme committees will function under the guidance of teachers. NSS units of our college conduct various activities such as seminars on topic like personality development, blood donation. Many of our college volunteers have participated in the State



level national level events. NSS also conducts programmes such as planting trees, adoption of Villages, blood donation camps, etc.

## 5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

All former students who have graduated from this college shall be eligible for membership of the association. All the final year students of the college shall be associate members of the association. All the members of the teaching faculties of the college shall be ex- officio members of the association. The former members of the teaching staff of the college who have served the college for a period of five years shall be honorary members of the association. Only members whose names are included in the membership register shall have the voting power

- To provide a forum for the old students of the College to meet and discuss the matters of common interest.
- To promote the interests of the College and its past and present students.
- To promote goodwill and mutual assistance among the members.
- To contribute to the cause of technical education by sharing the experience of those in the field.
- To help the authorities to improve the academic and cultural activities of the college.
- To co-operate with the students in literary, cultural and sports activities of the college.
- To help the members in employment and service matters without interfering in the policies of their employers.
- To arrange and conduct programmes of general and technical nature.
- To co- operate with other such bodies for the same ends.
- To promote other matters beneficial to prospects of the association

5.4.2 – No. of enrolled Alumni:

155

5.4.3 – Alumni contribution during the year (in Rupees) :

1155555

5.4.4 – Meetings/activities organized by Alumni Association :

Date Name of the Program Place Agency 12.10.2019 Oruvattomkoodi St. Marys church Auditorium, Taliparamba. VJEC Alumni Meet 20.06.2020 2019 Passout Google meet VJEC Alumni Meet 20.06.2020 2017 Passout Google meet VJEC Alumni Meet 28.06.2020 2007 Passout Google meet VJEC Alumni Meet 27.06.2020 2014 Passout Google meet VJEC Alumni Meet 21.6.2020 Alumni meet(online) 2014-18 Batch Google meet VJEC Alumni Meet

## CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

### 6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

1. Principal Level: The Governing body delegates all the academic and operational decisions based on policy to the Academic Monitoring Committee headed by the Principal in order to fulfil the vision and mission of the institute. Academic Monitoring Committee formulates common working procedures and entrusts the implementation with the faculty members. 2. Faculty Level: Faculty members are members of various committees/cells and allowed to conduct various programs to showcase their abilities. They are encouraged to develop leadership skills by being in charge of various academic, co curricular, and extracurricular activities. They are given authority to conduct industrial tours and to have tie up with industry experts And appointed as coordinator and convener for organizing seminars/workshops/conferences FDP. For effective

implementation and improvement of the institute, following committees are formed. Other units of the institute like sports, Arts, library, store etc. have operational autonomy under the guidance of the various committees/cells.

3. Student Level: Students are empowered to play an active role as a coordinator of co curricular and extra curricular activities, social service group coordinator. Participative Management The institute promotes a culture of participative management by involving the staff and students in various activities. All decisions of the institution are governed by board of management. Both students and faculties are allowed to give any suggestions to improve the excellence in any aspect of the Institute. Strategic Level • The Chairman, Manager, Bursar, Principal, Academic Co coordinator(UG PG) and Staff members are involved in defining the policies and procedures, framing guidelines and rules regulations pertaining to admission, placement, discipline, grievance, counselling, training placement, library services etc., and effectively implementing the same to ensure smooth and systematic functioning of the institute. • For the various programs to be conducted by the institute all the staff members will meet, discuss, share their opinions and plan for the event and form various committees involving students and coordinate with each other. Faculties and Staff members are also involved in deciding academic activities and examinations to be conducted by the college.

Functional Level : At functional level, in every academic day the faculty members participate daily in sharing the knowledge by discussing the latest trends in technology and academic progress of students in their Class Committee meeting. Staff members of Accounting department and Bursa of the institute are involved in preparation of annual budget of the institute. Operational level

:The Chairman of the institution is a member of the Governing body. The GB gives suggestions and monitors the procurement, introduction of new programs and welfare activities. The Principal of the institution is responsible for academic, non-academic and administrative activities of the institution. On behalf of the institution, he interacts and corresponds with AICTE, ,Govt. of Kerala, UGC, KTU (Affiliating University), etc .,The budget is earmarked for staff members and students to participate in various programmes organized by the institute.

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

## 6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Admission of Students	The Institute has a well organized and transparent admission system. All admissions are based on merit in accordance with the rank obtained in the KEAM .Also scholarships are given to meritorious students on joining in our college
Industry Interaction / Collaboration	Institute has interaction and collaboration with reputed research organizations, industries and institutions in India and abroad. It has 2 MOUs and also has several interdisciplinary and multidisciplinary projects in collaboration with other reputed organizations. Many faculty members are involved with different

consultancy programs. This increases the institute industry interaction. Many reputed organizations conduct training programs and workshops for student's .Alumni of the institute working in different reputed government/private/MNCs/academia are regularly invited to address the students. Department based industrial visits are conducted.

#### Human Resource Management

Delegations of responsibility - some of the key responsibility areas are identified and delegated at different levels - Office function, Principal, HOD, and Program Coordinators. Academic Council - All academic matter through academic council Internal Quality Assessment Cell (IQAC) Participatory Management - Subcommittee for different functional activities comprises representatives of teachers, nonteaching staff and students. It includes the involvement of the staff for organizing different programmes of the college. Faculty Development Programmes are organized by the college on regular basis. Performance appraisal system is practiced. Promotion policy - College follows the promotion policies of the Higher Education Department. In addition, College also has introduced seniority based and performance based promotions. Policy for compensation - College extends the following benefits to the staff members. Such as:  
Provident fund - Each member of the staff shall subscribe to College Provident Fund after 8years of working in college in accordance with statutory rule. Staff Health Group Insurance-The Institute in collaboration with Star Health Insurance Company provides medical insurance for all the staff members, The management will bear a part of the instalment. In the Year (2019-20) it was for Teaching Faculty - Rs.3000/year and for Non Teaching Faculty - Rs.4000/year, the remaining amount will be deducted from the salary as Monthly instalment. Maternity Leave-90 days with half pay (The leave salary shall be paid in 10 equal monthly instalments after rejoining duty). All teachers are treated at par. As a part of the continual quality improvement policy of the college, it has been decided to give Incentives to the staff members publishing papers in

conferences and journals (both national and international).

Library, ICT and Physical Infrastructure / Instrumentation

Institute Central Library was established with nearly 32000 books and 1550 books were added during 2019-2020 period and 140 print journals having e-learning resources with 6000 eBooks and 800 e-journals were added. The Institute has more than 724 computers. Each department is provided with computer and internet facilities. The institute has well established classrooms, seminar halls, auditoriums and fully equipped laboratories. Other amenities such as canteen, Coffee house, Infirmary, hostels, basketball court, indoor auditorium, prayer room and common halls, are available. Each department of the College has well established laboratories with modern equipment. The institute has well build gymnasium for all the staffs and students of the campus.

Research and Development

The Institute facilitates, monitor and encourage the research activities. Meetings are conducted to discuss various plans to promote research and motivate the faculty for academic advancement and keep track of the different government schemes and schemes of other agencies like CSIR, DST, DBT, DRDO, CSIR and KTU. • Creation of inter and multidisciplinary research teams. • Organizing conferences/seminars/workshops/training programmes. • Sponsoring faculty members for attending different conferences /seminars/workshops. • Encouraging faculty towards getting projects. • Establishment of department research committees. • Faculties are encouraged for publication in reputed journals and book publication. • Sabbatical leave is provided to faculties and College provides registration fees and travel cost for attending reputed National/International conferences. • Subscription to both printed and online journals. • Financial assistance is provided to projects. • Many research papers are published by students. We also promote IRPS research culture for students in the campus. Final year students can apply and their projects will be further evaluated by an expert committee and the selected research

papers expenses will provided by the college.

Examination and Evaluation

Institute has adopted reforms to maintain the quality of teaching and learning process and improving academic standards • The institution continues to adopt improved examination process.

• Examination reform - The Course instructor prepares the question paper for the respective courses and will be forwarded for IQAC and which will be then forwarded to the examination cell.

Further evaluation of answer scripts with respect to those courses is also done by respective course instructor.

The students are provided with an opportunity to access their answer script of each course. This process happens immediately after the announcement of results. All the copies (internal) are shown to the students. •

For each department 4 Internal exams and 1 resit exam for the students who have missed any one of the exams on account of genuine extenuating circumstances and one end semester examination are conducted. •The

internal examinations are conducted by the Internal Examination Cell •

Assignments and seminars are part of internal examination conducted by respective teachers. • Regular tutorial and booster classes are conducted. •

Continuous evaluation is carried out through regular tests, assignments, and projects.

Teaching and Learning

Forms Academic calendar, Semester plan and Assessment plan for each semester for the smooth conducting of academic learning. Conduct Faculty Development Programs and encourage faculty and students to participate in workshops, seminars, conferences etc.

Encourage and motivate faculty members to pursue higher education. Power point/Smart Classroom facilities to motivate and help students to do minor educational projects in related area/topics. Motivate and help students to do industrial projects and encourage them to participate in both national and international competitions. Conduct

External and internal academic audits on a regular basis. Workshops by alumni on current trend/technology.

Progression of students is continuously assessed. . Conduct booster classes for

	<p>weak students based on internal assessments. Financial support to students for participating in competitions.</p>
Curriculum Development	<p>The Department Advisory Board (DAB) at PG- UG Levels was constituted with members from industry, expert faculty and student alumni. The Meeting of the DAB is conducted at regular intervals. The ideas obtained from the various bodies are thoroughly discussed by the experts and forwarded to HOD. The feedback collected from the students and alumni for curriculum and suggestions are placed in DAB meetings. Analysis of all collected feedback is done on the employability and value based education.</p>

6.2.2 – Implementation of e-governance in areas of operations:

E-governance area	Details
Examination	<p>Student's registration forms for examinations are online. The hall tickets are received online. Internal exam results will be available in college software (Spaneos) for access to students and parents under each student's login.</p>
Planning and Development	<p>Smart Class rooms- Each department is provided with computers having internet facility .The Institute Central Library has adequate no. of books, journals, computer with internet facility and provision for digital library. From Morning 08:30 am to evening 06:00 pm library facilities are provided by the institute for the students and faculties. All the academic activities are done in software Spaneos.</p>
Administration	<p>Internet access to all machines and 150 MBPS leased line . Wi-Fi facility throughout the institute. Leave and Attendance of Faculties can be tracked through the software (Spaneos). Administrative information is digitalized and all the departments of the institute are provided with computer data cable network facility. CCTV surveillance system is enabled for the entire Campus, Central library and all the existing facilities.</p>
Finance and Accounts	<p>Fully computerized office and accounts section. Tally System for maintaining the accounts in accounts department.</p>

Student Admission and Support	<p>Internet WI-FI facility is provided in hostels. E-Learning resources were created using e-Journals and e-books. The library provides e-Journal facilities. Online admission including online payment gateway. Maintaining student database through Spaneos software.</p>
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### 6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	Sreejith K	FDP on Interaction of Coastal Development with Coastal Processes-Its Highlights and Challenges at NIT, Calicut	Nil	2020
2019	Biju Mathew	International conference on Innovative and Advanced multidisciplinary research at Singapore	Nil	25000
2019	Vasudevan M	FDP on Universal human values	Nil	5170
2019	Indulekha KM	FDP on Electric vehicle Renewable power charging stations-2019 at NIT Calicut	Nil	3570
2019	Jayesh George	FDP on Digital learning: The prospects of IOT in Technical education	Nil	10000
2019	Anto Sahaya Dhas	FDP on Machine Learning	Nil	9040
2019	Anoop BK	FDP at Belgaum	Nil	10000

2020	Divya B	Nil	ACM	1770
2020	Lipina Gopal	Nil	IEEE membership	7835
2020	Shelma George	Nil	IEEE membership	6860
<a href="#">View File</a>				

6.3.2 – Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	TRANSDISCIPLINE approach in engineering	Nil	16/07/2019	21/07/2019	100	0
2019	Emerging areas in nano material and its applications	Nil	24/06/2019	28/06/2019	10	0
2019	International conference on technology convergence in engineering , energy and sustainability (ICTCES-2019)	Nil	11/07/2019	12/07/2019	16	0
2020	Emerging areas in manufacturing	Nil	25/05/2020	30/05/2020	432	0
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6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
Application development using matlab	1	19/04/2020	19/04/2020	1



Webinar on industry projects	1	30/04/2020	30/04/2020	1
Computational fluid dynamics	1	05/05/2020	05/05/2020	1
Webinar on Materials engineering	3	04/05/2020	04/05/2020	1
Webinar on Design for additive manufacturing	1	30/04/2020	30/04/2020	1
Webinar on Innovate socially and create a sustainable journey	1	16/05/2020	16/05/2020	1
Webinar on Entrepreneurship development :understanding Angel and Venture capital funding	1	08/05/2020	08/05/2020	1
Webinar on Legal and ethical steps-productive entrepreneurship and Startup	1	12/05/2020	12/05/2020	1
Heat treatment steel	1	19/05/2020	19/05/2020	1
Novel material and its industrial applications	4	13/05/2020	18/05/2020	6
<a href="#">View File</a>				

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
118	130	61	63

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
<ul style="list-style-type: none"> <li>• EPF • Staff Association for Mutual Empowerment (SAME) • Medical Insurance (with Management Contribution) • Medical Leave •</li> </ul>	<ul style="list-style-type: none"> <li>• EPF • Staff Association for Mutual Empowerment (SAME) • Medical Insurance (with Management Contribution) • Medical Leave •</li> </ul>	<ul style="list-style-type: none"> <li>• Merit scholarships by management • GATE Coaching, Civil Service Academy • Language Lab-BEC • Booster Classes, Bridge Courses •</li> </ul>

Maternity Leave • PhD Leave • PhD incentive • Incentives for publications and results • Salary advance • Laptop loan without interest • Travel grant • Family quarters and hostel facilities • Recreation tour • On duty for attending FDP, Conferences and examination duties • Gymnasium Facilities

Maternity Leave • PhD Leave • PhD incentive • Incentives for publications and results • Salary advance • Laptop loan without interest • Travel grant • Family quarters and hostel facilities • Recreation tour • On duty for attending FDP, Conferences and examination duties • Gymnasium Facilities

Support for travel abroad • Student Counselling • Soft skill training • Arts day, Sports day, Peace Club, Tech fest, Technical Exhibition • Class committee, Student Council, Sports, Arts College Magazine committees • Graduation Day • Registered Alumni Association • Hostel Facilities • Gymnasium facilities • Internet facilities

#### 6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

Vimal Jyothi Engineering college is a self financing institution. The college is run by collecting fee from its students. The accounts of Vimal Jyothi Engineering college are audited regularly as per the government rules. VJEC has an account section headed by the Bursar of the college, which controls the entire fund. The account officer examines receipts and payments with vouchers and necessary supporting documents. He also ensures that all payments are duly authorized. An external auditor conducts statutory audit at the end of every financial year. The college files income tax return every year with in the stipulated time.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
<b>No Data Entered/Not Applicable !!!</b>		
No file uploaded.		

6.4.3 – Total corpus fund generated

0
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#### 6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	ISO 9001 Team KTU Team	Yes	IQAC
Administrative	Yes	ISO 9001 Team	Yes	IQAC

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

Our Institute has a vibrant Parent-Teacher Association, to understand the perceptions and expectations of parents towards the activities designed and implemented for the students. Every year we have 2 class wise PTA meetings (once in each semester immediately after the first internal exams of all batches) exclusively to focus on the improvement of academic activities of our students Also we have an annual PTA General body, (including all the parents) once in an year. Apart from that, a PTA executable committee has been

constituted with 14 members from the general body, Including Batch wise parent representatives to follow up and evaluate the decisions taken by the General body. The executive committee will meet once in every two months and some special occasions, where the sudden decisions to be initiated, in connection with the student supporting activities. Institution believes in maintaining a holistic relationship between teachers and parents and this approach is helpful to improve the quality of our education system and well-being of our overall development.

6.5.3 – Development programmes for support staff (at least three)

Different development programmes are organized for support staff such as: Computer-based skill development trainings, Medical insurance scheme worth of 5 lakhs including the family members of each staff, Mutual assistance fund raising scheme named SAME(Staff Association for Mutual Empowerment).

6.5.4 – Post Accreditation initiative(s) (mention at least three)

Arranged National and International level conferences, Arranged FDP for the teaching faculty, Conducted number of seminars, workshops and conferences at a regular intervals, Conducted many campus drives for the placement of final year students.

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	Yes
c) ISO certification	Yes
d) NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	IoT Worksh op-2K19	24/10/2019	24/10/2019	25/10/2019	10
2020	Webinar on Real Time operating System	05/08/2020	05/08/2020	05/08/2020	56
2019	Emerging Areas in Nan omaterials and its Application	24/06/2019	24/06/2019	28/06/2019	25
2020	Emerging Areas on Man ufacturing	25/05/2020	25/05/2020	30/05/2020	182
2020	Nanocompos ites and Nan omaterials its Characte rization	08/06/2020	08/06/2020	20/06/2020	66
2020	Entreprene urship and future trends in	18/02/2020	18/02/2020	18/02/2020	58

	Engineering				
2020	Webinar on funding projects, consultancies and book writing	08/07/2020	08/07/2020	08/07/2020	152
2020	C Programming Workshop	21/01/2020	21/01/2020	23/01/2020	56
2020	Android workshop	04/03/2020	04/03/2020	05/03/2020	56
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## CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

### 7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
IEEE PES SBC VJEC in association with IEEE WIE AG VJEC conducted a webinar on Women in IEEE	26/04/2020	26/04/2020	35	0
Photography Contest for Girls	30/04/2020	30/04/2020	20	0
TRIVIA quiz by IEEE WIE AG VJEC	10/03/2020	10/03/2020	20	0
IEEE WIE AG VJEC conducted a motivational speech by Ms. Soumya P.N ( Senior Instructional Designer and Project Lead , CogBooks Ltd & Himalayan Rider)	08/03/2020	08/03/2020	42	115
Google Doodle quiz	17/02/2020	17/02/2020	12	13

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
Grid connected Solar PV was operating in our campus with 50 kW power generation

capacities along with roof solar panel of 2kW power supply. This takes care of 25 of the power supply we need.

#### 7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	0
Provision for lift	Yes	0
Ramp/Rails	Yes	0
Braille Software/facilities	Yes	0
Rest Rooms	Yes	0
Scribes for examination	Yes	0
Special skill development for differently abled students	No	0
Any other similar facility	No	0

#### 7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2020	12	12	02/05/2020	1	Nightingale-19 robot'	For assisting doctors and medical workers in COVID-19 treatment.	7
2020	12	12	08/05/2020	1	Mobile Kiosk for COVID Patients, HERCULES-19	This could ensure the safety of doctors, nurses and health workers at hospitals and in public places such as	4

						airports, regarding COVID -19 testing.	
2020	12	12	12/04/2020	1	Pedal-operated hand sanitizer dispenser	This could help hands free usage of sanitizer in the context of COVID-19.	4
2020	12	12	15/02/2020	1	Charity Pilgrim	First Year students of Electronics and Communication Engineering went on a Charity Pilgrim to Thiruraktha Asramam, Karuvanchal.	56
2020	12	12	15/02/2020	1	Charity Pilgrim	First Year students of Electrical Electronics Engineering and Applied Electronics and Instrumentation Engineering went on a Charity Pilgrim to Karunapuram, Alakkode	57
2020	12	12	15/02/2020	1	Charity Pilgrim	First Year students of Mechanical Engi	67

						neering went on a Charity Pilgrim to Mariyabhavan, Peravoor	
2020	12	12	15/02/2020	1	Charity Pilgrim	First Year students of Civil Engineering went on a Charity Pilgrim to LSDP, Vilamana	106
2020	12	12	15/02/2020	1	Charity Pilgrim	First Year students of Computer Science Engineering went on a Charity Pilgrim to Hope Charitable trust, Pilathara	115
2020	12	12	09/01/2020	7	NSS Camp	VJEC NSS Unit-194, conducted a 7 day camp at Velimanam St. Josephs LP School, CheriyaAr eekkamala . The camp has improved the cleanliness of the school and the village. It has also increased the	50

service  
attitude  
of the pa  
rticipate  
d  
students.

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7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
<b>No Data Entered/Not Applicable !!!</b>		

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
First Year students of Electronics and Communication Engineering went on a Charity Pilgrim to Thiruraktha Asramam, Karuvanchal.	15/02/2020	15/02/2020	56
First Year students of Electrical Electronics Engineering and Applied Electronics and Instrumentation Engineering went on a Charity Pilgrim to Karunapuram, Alakkode	15/02/2020	15/02/2020	57
First Year students of Mechanical Engineering went on a Charity Pilgrim to Mariyabhavan, Peravoor	15/02/2020	15/02/2020	67
First Year students of Civil Engineering went on a Charity Pilgrim to LSDP, Vilamana	15/02/2020	15/02/2020	106
First Year students of Computer Science Engineering went on a Charity Pilgrim to Hope Charitable trust, Pilathara	15/02/2020	15/02/2020	115

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### 7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

- Go Green Club of the college is functioning with a vision to make the college campus green and eco-friendly.
- Rain water harvesting facility with 30 lakhs storage capacity.
- Grid connected Solar PV farm with 50 kW generation capacity along with roof solar panel of 2kW • power supply. This takes care of 25 of the power supply we need.
- Three Bio-gas plants, with a total capacity of 30 cubic metre is operational in our campus.
- Sewage treatment plant for water recycling.

## 7.2 – Best Practices

### 7.2.1 – Describe at least two institutional best practices

Best Practices - 1

1. Title of the Practice: Sustainability Development Initiatives

2. Objectives of the Practice: Create awareness among students, staff about protecting environment. Conservation and effective use of Natural Resources. Know methods to maintain and create additional natural resources. Motivate student and staff to adopt them personally and get benefited, which will uplift the society

3. Context Modernisation of social living, increase in industries, less knowledge and awareness on natural resources, unlimited usage of easily available natural resources, less importance on the usage of the renewable energy, has created a threat to the nearing emptiness of the available natural resources.

4. Practice 47.2 lakhs litres of Rain water (RW) is stored. Solar PV roof top solar panels provide 52kW power supply. Solar water heaters are used in hostels. Bio-gas plant uses waste from kitchen and mess halls as fuel. Used Water from kitchen, hostels is sent to waste water treatment plant. Effective system to collect the waste. Plastic free zone.

5. Evidence of Success The stored rain water is used for 45 days. Solar energy is sent to the grid. Bio gas is used for cooking purpose. The treated waste water is used for gardening. The wastes are disposed-off without affecting the environment. Purification plant uses rain water for purified drinking water. The college has received Commendation Certificate 2017 from Kerala state for using Renewable Energy sources. Good and efficient group of maintenance staff is available.

6. Problems Encountered and Resources Required

a) Frequent maintenance of rain water storing tanks needs to be done.

b) Periodical cleaning of solar panel surfaces.

c) A dedicated team is required to maintain greenery in campus.

d) It is somewhat difficult to create awareness about "3R's" of Environmental Sustainability among students and staff.

Best Practices -2

1. Title of the Practice: Concurrent Employment Enhancement Programme

2. Objectives of the Practice:

a) Increase employment opportunities for final year students.

b) Train on current industry practices, beyond syllabus.

c) Help students to acquire additional job specific skills, industry relevant certifications.

d) Develop self confidence in students for employment

3. Context Presently employment is a choice of self-decision. Acquiring additional skills for employment is a must. Students prefer parallel learning and that saves time. College wants to improve the skill set of students so that they will become employable in good companies.

4. Practice Company signs a MOU with the department. Trainer gives syllabus, class schedule and conduct the course in the college. Department and trainer discuss with student's parents. A course fee is collected by the trainer from the students who join the training programme. After completion of the course, company will arrange for employment. The last fee instalment is paid only after getting employment.

5. Evidence of Success

a) Courses offered are voluntarily taken by students.

b) Students opting for course increase every year.

c) Good feedback from students.

d) Students initiate additional courses.

e) Parents express a satisfactory opinion about additional courses.

f) Student welcome such training programmes.

6. Problems Encountered and Resources Required

a) Joining the course is restricted by the financial component involved.

b) Using college resources affects the regular class.

c) Changing resource person hinders continuous learning.

d)

Difficulty in getting last instalment of fees from students. e) Students find difficulty in parallelly managing regular course work and training course work

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

<https://vjec.ac.in/about/naac/best-practices/>

### 7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

Centre of Excellence in a Rural Area: Our college is located in Eruvacherry Village and Panchayath, Taliparamba Taluk, Kannur District, Kerala. Within a radius of 30 km, we don't have any other engineering college. Our college is the brain child of the Catholic Archdiocese of Thallassery, started in the year 2002 with an aim to serve the rural society. During inception, college had 3 B.Tech. degree programmes (ECE, EEE, CSE) and presently it offers 7 B.Tech. and 6 M.Tech. programmes with an approved yearly intake of 540 students in B.Tech and 108 students in M.Tech. We are affiliated to A P J Abdul Kalam Technological University, Kerala and approved by AICTE, New Delhi and has 4 NBA accredited B.Tech. programmes (CE, ME, CSE, EEE). We are having PhD programmes in 4 departments. We have a very good infrastructure facility to satisfy the norms and conditions of the affiliating, approving and accrediting professional bodies. We have about 20 of students from rural area and our college bus operates to a radius of 60 km from our college. Scholarships from Government for meritorious, BC, MBC, SCST is being distributed to eligible students. Our college management also offers scholarships for needy students from rural area to encourage them to complete their engineering education. Each department has their own department associations student chapter and affiliation from their respective National, International Professional associations, societies and institutions. This gives an opportunity to expose our students to their activities and become a part of them. This creates a good professional attitude in students and increases their employment possibilities. A good solar field, solar water heaters for hostels, a bio gas plant, an excellent rain water harvesting and storing system, an efficient water treatment plant, a hygienic water purification unit, a pleasant greenery environment in 2/3 area of the campus, well maintained as a part of the Environmental Sustainability development procedures in our campus.

Provide the weblink of the institution

<https://vjec.ac.in/about/naac/institutional-distinctiveness/>

### 8. Future Plans of Actions for Next Academic Year

The LEED Green Building Rating System is a globally accepted benchmark for design, construction and operation of high-performance green buildings. Colleges and universities often have the unique opportunity to control planning and construction decisions at various levels and set comprehensive, far-reaching objectives for future development. Earning a LEED rating is an important step in proving that our college is serious about the environment, but not all green buildings earn the distinction. In this case, it's more important to look for the efforts - implementation of gray water systems, solar panels and faculty-led initiatives to cut down on water or electricity usage. LEED rating systems are tools that help us implement the aforementioned with a plan for the betterment of the future. Whether used for certification, for visioning exercises or to help evaluate current campus performance, LEED for Neighborhood Development definitely will serve as a valuable tool for our institute in developing a blueprint toward sustainability. LEED-ND can be a valuable tool for our existing campus. Many of the credits in the rating system can be used as criteria for deciding the best

way to renovate part of the existing campus. Although it was designed as a certification tool, LEED-ND can be useful for evaluating future development and shaping the master planning policy of the college. In some cases the entire system might be considered but in others, specific metrics can be pulled out to influence focused planning. We intend to protect the building with fire protection system which includes sprinklers, smoke detectors, alarms, water curtains etc. to arrest fire. The entire campus is planned to be lit with solar street lights and all of the waste generated on campus would be treated through a centralized Treatment Plant that recycles and reuses. Special care would be taken while disposing the e-Waste generated. Rainwater harvesting system is already in place making the building self-sustainable even in the absence of domestic water supply. The Heating, Ventilation, Air Conditioning Refrigeration (HVAC R) systems if installed in the institute ensuring they are free from Chlorofluorocarbon (CFC) - based refrigerants, would ensure energy efficiency. Since long-term planning is very important for large institution like ours with a vested interest in the future, it has become commonplace to include sustainability planning as a part of this.. By considering elements of the rating system like walkability, access to alternative transit, water management, and energy efficiency, we hope to use smaller projects to shape the direction of future development. These features would aid us to develop a sustainable campus and may lay the groundwork for eventual certification.