



Yearly Status Report - 2018-2019

Part A

Data of the Institution

1. Name of the Institution		MVJ COLLEGE OF ENGINEERING
Name of the head of the Institution		Dr P Mahabaleswarappa
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		080-42991002
Mobile no.		9448345434
Registered Email		principalengg@mvjce.edu.in
Alternate Email		viceprincipal@mvjce.edu.in
Address		Near ITPB, Channasandra, Whitefield, Bangalore
City/Town		Bangalore
State/UT		Karnataka
Pincode		560067

2. Institutional Status					
Affiliated / Constituent		Affiliated			
Type of Institution		Co-education			
Location		Urban			
Financial Status		private			
Name of the IQAC co-ordinator/Director		M Brindha			
Phone no/Alternate Phone no.		08042991005			
Mobile no.		9632773981			
Registered Email		iqac@mvjce.edu.in			
Alternate Email		viceprincipal@mvjce.edu.in			
3. Website Address					
Web-link of the AQAR: (Previous Academic Year)		https://www.mvjce.edu.in/internal-quality-assurance-cell-iqac/			
4. Whether Academic Calendar prepared during the year		Yes			
if yes,whether it is uploaded in the institutional website: Weblink :		https://www.mvjce.edu.in/academic-calendar/			
5. Accrediation Details					
Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	B++	3.00	2018	01-Nov-2018	31-Oct-2022
6. Date of Establishment of IQAC			01-Dec-2012		
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	
Workshop on		19-Feb-2019 1		80	

Three- Day Faculty Development Programme on 'Application of Tools & Techniques in Research Methodology'	28-Jan-2019 3	100
Episode 2 of India First Leadership Talk Series - Planning for Career	24-Jan-2019 1	98
FDP on Advanced Research Trends in Speech and Image Processing	21-Jan-2019 5	24
Innovations in Mechanical Engineering and Technology	11-Jan-2019 2	37
Workshop on 'IPR for students and Faculty Members'	10-Jan-2019 1	186
FDP On IOT	20-Dec-2018 2	38
Future INDIA Science and Technology	30-Oct-2018 1	500
Guest Lecture on	24-Sep-2018 1	150
Workshop on Creative Thinking, Innovation and Problem Solving	23-Aug-2018 3	85
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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
Electronics and Communication Engineering	FDP	AICTE	2018 14	192000
Physics	IIP	Globe Engineering Entreprises	2018 365	100000
Mechanical Engineering	Student Project	KSCST	2018 120	8000
Aeronautical Engineering	Grant - in Aid	DRDO , AR& DB Aero Panel	2018 730	857000
Aeronautical Engineering	Grant - in Aid	DB Aero Panel	2018 730	898750
Chemical Engineering	Student Project	IICHE	2018 120	5000
Chemical Engineering	Student Project	VTU	2018 180	10000

Computer Science and Engineering	Student Project	KSCST	2018 120	5000
Computer Science and Engineering	Student Project	VTU	2018 180	10000
Computer Science and Engineering	Smart India Hackathon	AICTE	2018 180	100000
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9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	View File
10. Number of IQAC meetings held during the year :	2
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	View File
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No

12. Significant contributions made by IQAC during the current year(maximum five bullets)

Conferred with Autonomous status from Academic year August 2019 to July 2029. Increase in Intake for the Programme B E Information Science and Engineering from 60 to 120. Participation in Clean and Smart Campus award by AICTE Awarded with Silver Rating in AICTE CII Survey of Industry Linked Technical Institute. New Programme in B. E Aerospace Engineering with Intake of 60 was introduced

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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

Plan of Action	Achivements/Outcomes
To encourage the students to implement the innovative projects.	0 Innovative projects have been done by the students under the guidance of faculty members and displayed during the Workshop on "Readying students for Industry 4.0".
Encouraging faculty members and	10 Provisional patents have been filed.

students to patent their work:	
Promoting the paper publication in reputed UGC /Scopus / Web of Science indexed journals:	210 Papers were published in reputed UGC/Scopus/Web of Science journals by the faculty Members.
Awareness programs to be conducted in the institution to motivate the faculty members to register for PhD.	59 faculty members have registered and pursuing PhD.
To get Autonomous status	Conferred with Autonomous status from Academic year 2019-20 till 2028-29
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14. Whether AQAR was placed before statutory body ?	Yes
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Name of Statutory Body	Meeting Date
Governing Council	28-Sep-2019

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	Yes
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Date of Visit	06-May-2019
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16. Whether institutional data submitted to AISHE:	Yes
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Year of Submission	2019
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Date of Submission	26-Feb-2019
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17. Does the Institution have Management Information System ?	Yes
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If yes, give a brief description and a list of modules currently operational (maximum 500 words)	Institution has a Management Information System. The modules currently in operation include the admission application management system, the student on boarding and information system, Learning Management System among others, Academic activities of students and faculty members, students' attendance, Time table, Assignments, Examinations, staff attendance, Staff Leave Management, Various feedback reports, Alumni Engagement, student's Training and Placement of student. Library Management, Inventory Management and Transportation i.e, College bus facilities are also managed through this.
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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

MVJ college of engineering, affiliated to VTU, follow the curriculum given by the university. VTU provides academic calendar, based on that, college prepares the academic calendar, in which date of commencement of the academic session, duration of semester, internal assessment dates, final exam dates etc. are mentioned. HOD allocates subjects to teachers based on the subject expertise and timetable is prepared. The teachers prepare their lesson plan, teaching materials and delivery contents. Course coordinators include the content beyond the syllabus to fill curricular gaps in the lesson plan. The contents are delivered as per the lesson plan. The first lecture is utilized for explaining the course objectives and outcomes. Various Course Delivery Methods used are:

Lectures: Lectures are used to convey information, history, background, theories and equations of engineering practice, relate engineering practice with ethical issues, expose the students to contemporary issues and the need for life-long learning in the societal context

Class presentations: Presentations are given to illustrate ideas and concepts in intricate graphical and animation form effectively communicate the working of actual engineering solutions and their impact.

Tutorials: Tutorials help the students in developing better understanding of the subjects and Clarifying their doubts that could not be taken up during lectures.

Lab experimental work: Laboratory work demonstrates how theory can be verified by experiments through interpretation of results

Simulations and experimental exercises: Simulations are used to explain the concepts in a better way

E-Learning: Identifying online resources for self-learning Learning management system(LMS) materials, NPTEL videos, Case Studies / Technical report,s Webinar Edusat, IIT Bombay spoken tutorials, Technology in Education. Faculty members are encouraged to attend various workshops on pedagogical teaching learning methods, Blooms taxonomy and Outcome Based Education (OBE) in order to improve the quality of teaching. To name a few, the WIPROs MISSION 10X training, NI LabVIEW, summer training, IUCEE's OBE training. Faculty members attend online courses like MOOC, Coursera, NPTEL/Swayam and FDPs to upgrade their knowledge on new technologies and become expertise in the subject, they are handling. This, in turn helps the faculty to deliver the contents in the best possible way. During the course, three internal tests are conducted as per the academic calendar. The quality of the internal test is maintained through following process: For every subject, respective faculty prepares question bank that covers equal number of questions from each unit, covering all the topics. The question bank is scrutinized in two levels, in department level and in centralized level to check the quality of questions and make sure that questions addresses all course outcomes and Revised Blooms taxonomy is followed. The question paper setter sets two question papers; one will be selected by principal on the day of exam Faculty prepares the answer key, Scheme of evaluation and centralized valuation is done. After every internal exam, Total Quality Management check is performed to ensure that valuation is done according to Scheme prepared. After the valuation, progress reports are sent to parent through post and PTM is conducted.

1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entreprene urship	Skill Development
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Certificate Course on "Industry Perspective on Process Control and Optimization"	22/02/2019	4	Employability	Process Control Optimization
Skill development on Application specific Robots	25/02/2019	4	Employability	ICT
Tomorrow's Engineers Program	11/03/2019	4	Entrepreneurship	Creativity/Innovation
Foundation Skill in Integrated Product	14/03/2019	4	Entrepreneurship	Creativity/Innovation
TEXAS INSTRUMENT certification in MSP430	16/03/2019	4	Employability	ICT
Skill development on Robotics domain	18/03/2019	4	Employability	ICT
Certification on AutoCAD	26/03/2019	4	Employability	ICT
Certification on System Software Diagnostic tools and Network Essentials	28/03/2019	4	Employability	ICT
Certification Course on Quadcopter	29/03/2019	4	Employability	ICT
IIT BOMBAY Certification in Scilab, Arduino, Advanced C	25/06/2019	40	Employability	ICT
NI LabView certification Program for 2nd year students	13/08/2018	4	Employability	ICT
Foundation Program By	10/09/2018	45	Employability	ICT

Infosys
Campus
Connect

Certificate Course on C Programming By IIT Bombay Spoken Tutorial	24/09/2018	40	Employability	ICT
Certificate Course on C Programming By IIT Bombay Spoken Tutorial	24/09/2018	40	Employability	ICT
Certificate Course on RDBMS Programming By IIT Bombay Spoken Tutorial	24/09/2018	40	Employability	ICT
Certificate Course on JAVA Programming By IIT Bombay Spoken Tutorial	24/09/2018	40	Employability	ICT
Certificate Course on PHP and MYSQL By IIT Bombay Spoken Tutorial	24/09/2018	40	Employability	ICT
Certified Program on Transformer technology- Latest trends	28/09/2018	4	Employability	ICT
Skill Development Program On A Practical Introduction To Computational Fluid Dynamics For Chemical	11/10/2018	4	Employability	ICT

Engineers				
Certificate Course on Ethical Hacking and Cybersecurity, Internet of Things and its Application using TIVA"	18/02/2019	4	Employability	ICT
NI LabView certification Program	11/02/2019	40	Employability	ICT
Certificate Course on Perl Programming By IIT Bombay Spoken Tutorial	20/02/2019	40	Employability	ICT
Certificate Course on Python Programming By IIT Bombay Spoken Tutorial	20/02/2019	40	Employability	ICT
Skill development on Application specific Robots	21/02/2019	4	Employability	ICT

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
BE	Aerospace	16/08/2018
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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 CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BE	Aeronautical Engineering	25/07/2018
BE	Chemical Engineering	25/07/2018
BE	Civil Engineering	25/07/2018
BE	Computer Science and Engineering	25/07/2018

BE	Electronics and Communication Engineering	25/07/2018
BE	Electrical and Electronics Engineering	25/07/2018
BE	Information Science and Engineering	25/07/2018
BE	Mechanical Engineering	25/07/2018
Mtech	Aeronautical Engineering	25/07/2018
Mtech	Structural Engineering	25/07/2018
Mtech	Transportation Engineering	25/07/2018
Mtech	Computer Science and Engineering	25/07/2018
Mtech	Digital Electronics and Engineering	25/07/2018
MBA	MBA	25/07/2018
BE	Aerospace	16/08/2018

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

	Certificate	Diploma Course
Number of Students	3670	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
Placement Technical training	09/08/2018	953
Job Skill Getting Ready for Corporate	16/08/2018	953
Life skills and orientation to a professional course	17/08/2018	1192
Aptitude and Analytical Skills	20/08/2018	953
Yoga and Breathing Exercise	20/08/2018	1192
Presentation Skills II computer aided	10/09/2018	1092
Entrepreneurship Awareness program	18/03/2019	989
Communication Skill	25/03/2019	1092
Creativity and innovation	08/04/2019	989
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
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BE	AE	359
BE	CIVIL	402
BE	CH	312
BE	CSE	442
BE	ECE	363
BE	EEE	160
BE	ISE	165
BE	ME	352
MBA	MBA	148
Mtech	Structural Engineering	12
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
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
<p>Institute has collected feedback from stake holders about curriculum, Teaching - Learning Process, Infrastructure, Placement, for continuous improvement of the system. • Parent's feedback • Alumni's Feedback • Employers' Feedback • Students' Feedback • Faculty's Feedback Feedbacks collected from all the stake holders are analysed and actions are taken for continuous improvement. Feedbacks from parents are collected periodically about the academic environment, academic standard and overall development and progress of the student. Feedback from alumni is collected every year and their suggestions are incorporated in revising Programme Educational Outcome (PEO). Feedback from recruiters is obtained at the end of their recruitment process. This is used for improving the employability skills of the students. Feedback collected from students are used to improve Academic environment, Teaching-Learning process, Placement, Infrastructure and faculty' feedback. Feedback from faculty is used to improve the academic environment, Research and Development activities, curriculum and Teaching-Learning process.</p>

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
No Data Entered/Not Applicable !!!				
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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
2018	3670	183	188	9	36

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	Number of smart classrooms	E-resources and techniques used
233	233	28	109	5	22
View File of ICT Tools and resources					
View File of E-resources and techniques used					

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

Yes. An inhouse fulltime student counsellor is available in the campus. Besides, 18 to 20 students are assigned to a faculty mentor who monitors the progress of the students and provide guidance to the students. The counsellors are assigned various responsibilities which include academic progress, dealing with student's personal issues, interacting with other faculty and Head of the Department regarding their mentees performance, interacting with parent/ guardian etc. The counsellors maintain a file for each of their mentee in which all the details of the student are filed. The file contains registration forms of every semester, the personal information of the student, academic performance of the student, co-curricular extra-curricular activities, copies of grade cards, correspondences with parents, etc.,

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
3670	233	1:15

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
233	233	0	0	54

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
2019	Prof S. C. Gupta	Associate Professor	VES cash award for Book Publication
2019	Dr.KrishnaMoorthy	Assistant Professor	VES cash award for Sponsored Project
2018	Dr.Indu Pandey	Associate Professor	Reviewer award by journal of

			Biosensors and Bioelectronics, Elsevier publication
2018	Dr.Galiveeti Hemakumar Reddy	Associate Professor	Reviewer award by International journal of electrical power and energy systems
2019	Dr.ThiruKrishna J T	Associate Professor	Reviewer award by Pervasive and Mobile Computing Journal - Elsevier
2019	Dr.Hameem Shanavas	Associate Professor	Reviewer award by Computer Communications - Journal - Elsevier
2019	Dr.Hameem Shanavas	Associate Professor	Reviewer award by Microprocessors and Microsystems Journal - Elsevier
2019	Dr. D.Bharath	Assistant Professor	VES cash award for Paper Publication
2019	Ms.Sanchari Saha	Assistant Professor	VES cash award for Book Publication
2019	Dr. Krishnamoorthy	Assistant Professor	VES cash award for Book Publication VES cash award for Book Publication
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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
BE	B.E	I/I	17/01/2019	08/03/2019
BE	B.E	II/I	17/06/2019	07/08/2019
BE	B.E	III/II	03/11/2018	20/02/2019
BE	B.E	IV/II	23/05/2019	15/07/2019
BE	B.E	V/III	30/11/2018	08/03/2019
BE	B.E	VI/III	23/05/2019	15/07/2019
BE	B.E	VII/IV	04/12/2018	28/02/2019
BE	B.E	VIII/IV	23/05/2019	15/07/2019
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2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

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University guidelines are strictly adhered to with respect to evaluation process. Three internal assessments are conducted. The schedules of internal assessments are communicated in the beginning of the semester through Institute academic calendar which is prepared based on the university academic calendar. Internal exam timetable is displayed in the notice board. • Questions are framed, such that they adhere to VTU standard. • We follow the Revised Blooms Taxonomy. • There are 5 Course Outcomes(COs) for each subject. The first internal test question paper covers two COs, second internal test covers another two COs, third internal test covers another one CO. • The subject handling faculty prepares question bank that covers equal number of questions from each unit, covering all the topics. • Department internal exam coordinator under the guidance of HOD, checks for the standard of the question bank. • College Internal exam Coordinator appointed by the Principal along with an Exam team, selects the final internal questions for each subject from the question bank • Internal exam coordinator ensures smooth conduction of test and proper valuation of internal books. • A Centralized valuation system is followed. The head of the Centralized scheme is registrar of the college. Faculty prepares the answer key / Scheme of evaluation and it is documented with a copy of sample question paper for the future reference. Marks are entered in ERP by faculty. • After every internal exam, Total Quality Management (TQM) Check is performed to ensure that valuation is done according to Scheme prepared. • The University adopts Choice Based Credit System . For 2018 Scheme, test is conducted for 35 marks and remaining 10 marks are based on the performance in assignments, seminars, quiz, Projects, etc., • Suitable measures are taken to check whether performance of students is judged fairly and in an effective manner. Students are allowed to go through the valued answer scripts of internal assessment tests and doubts regarding evaluation are cleared. Internal Test performance are intimated to the parents in 2 days and Parent Teachers Meeting is conducted within a week to discuss the performance of their ward. • Whenever class tests, internal assessment tests are conducted the results of the students' performance are used by the faculty to identify slow and advanced learners.

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

The Institute being affiliated to Visvesvaraya Technological University, the university releases the calendar of events for the affiliated colleges at beginning of every academic semester, which includes start and end dates of the semester and examination schedules. With reference to University calendar, IQAC of the Institute prepares the detailed calendar of events at the institute level. The Academic Calendar, a part of the College Handbook, is prepared by the HODs, Registrar, Vice-Principal headed by the Principal and provided to all the teachers and students at the beginning of the academic year. The College announces academic calendar annually in the month of July. It includes the dates of re-opening, commencement of internal tests, commencement of semester examinations, all the functions and events of the all the Departments and College, Government, local and Institutional holidays, etc. The Action Plan for academic oriented activities like seminars / workshops / conferences to be organized, subject experts to be invited for Guest lectures, cultural programmes, schedule of UG and PG project reviews are decided in the respective departments / committees / clubs etc., presented in the Academic Council meeting and submitted to the Principal before the commencement of the academic year. The evaluation of the action plan is reviewed by Academic Council members at the end of the academic year to incorporate in the Academic Calendar. Internal Assessment tests are conducted strictly as per the guidelines of VTU and as per academic calendar. Three internal tests are conducted as per the University norms. After conducting each Internal exam, the centralized evaluation should be completed within the specified date. The internal marks

and evaluated books are verified by the students. Proctors inform parents about the internal marks and attendance status through post/ mail within a week. Parents teachers meeting is also conducted to inform the parents about the internal marks and attendance status after each internal. Based on the Internal exam marks, Slow learners are identified, and remedial/ special classes are conducted. Faculty explains tough topics, revise important topics and concepts based on the previous years University question papers. Students are evaluated continuously based on three Internal tests and prepare them for End Semester Examination.

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)

<https://www.mvjce.edu.in/computer-science-engineering/>

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
AE	BE	Aeronautical Engineering	95	95	100
CH	BE	Chemical Engineering	36	36	100
CSE	BE	Computer Science & Engineering	200	198	99
CV	BE	Civil Engineering	94	84	89.4
ECE	BE	Electrical & Communication Engineering	153	151	99
EEE	BE	Electrical & Electronics Engineering	41	37	87.8
ISE	BE	Information Science & Engineering	33	33	100
ME	BE	Mechanical Engineering	148	145	98

[View File](#)

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://www.mvjce.edu.in/internal-quality-assurance-cell-igac/>

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
Any Other (Specify)	14	AICTE	1.92	1.92
Students Research Projects (Other than compulsory by the University)	180	AICTE	1	1
Students Research Projects (Other than compulsory by the University)	180	VTU	0.2	0.2
Students Research Projects (Other than compulsory by the University)	120	IICHE	0.05	0.05
Industry sponsored Projects	365	Globe Engineering Enterprises	1	1
Industry sponsored Projects	730	DRDO , AR DB Aero Panel	17.55	0
Minor Projects	120	KSCST	0.18	0.18
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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
2 days Workshop on Quadcopter	Aeronautical Engineering	29/03/2019
Workshop on Industry Perspective on Process Control and Optimization	Chemical Engineering	22/02/2019
Workshop on IPR for students and faculty members	All Departments	10/01/2019
Seminar on Techniques to enrich Programming Skills	Computer Science and Engineering	27/10/2018
Workshop on Open Source Tool and Projects	Computer Science and Engineering	17/11/2018
Workshop on Internet of Things, and its Applications using TIVA	Computer Science and Engineering	19/02/2019

2 days Workshop on Ethical Hacking and Cyber Security	Computer Science and Engineering	20/02/2019
Seminar on To the Moon and Beyond	Aeronautical Engineering	29/03/2019
Seminar on Ancient Indian Lessons in Chemical Engineering	Chemical Engineering	15/04/2019
Seminar on Demonstration Experiments in Chemical Engineering	Chemical Engineering	04/05/2019
Seminar on Demystifying sustainability	Chemical Engineering	13/10/2018
Seminar on Advances in super conducting materials and Fuel cells	Chemistry	21/03/2019
Seminar on Challenges in Under Ground Metro Railway Construction	Civil Engineering	01/09/2018
Seminar on Software Test Automation	Computer Science and Engineering	13/10/2018
Seminar on Compiler Design	Computer Science and Engineering	16/03/2019
Seminar on Cloud Computing	Computer Science and Engineering	27/04/2019
Workshop on Microwave, Antenna and Machine Learning	Electronics and Communication Engineering	22/09/2018
One day python workshop for teachers	Electronics and Communication Engineering	22/06/2019
Seminar on Electromagnetic Interference	Electrical and Electronics Engineering	05/04/2019
Seminar on Power System Stability	Electrical and Electronics Engineering	23/03/2019
2 days Workshop on Transformer Technology - recent Trends	Electrical and Electronics Engineering	28/09/2018
Seminar on Switched mode power Conversion	Electrical and Electronics Engineering	16/10/2018
Workshop on Renewable Energy	Electrical and Electronics Engineering	15/03/2019
Seminar on Application of Artificial Intelligence in Machine Learning	Information Science and Engineering	24/09/2018
Seminar on Recent Trends in Data Mining	Information Science and Engineering	23/03/2019
Seminar on Experimental Techniques of Dynamic	Mechanical Engineering	28/02/2019

Systems		
Seminar on 'Application of Rock Mechanics in High Rise ConstructionsC	Civil Engineering	01/09/2018
3 days workshop on Creative Thinking, Innovation and Problem Solving	All Departments	11/03/2019
3 days workshop on Creative Thinking, Innovation and Problem Solving	All Departments	23/08/2018
Training on Designing of Voice controlled robot and Gesture based robot	Electronics and Communication Engineering	21/02/2019
Workshop on Animation Tools	Computer Science and Engineering	13/05/2019

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
Best presenter	Ms.Hasini Dosapathi	Institute of Chemical Technology	08/10/2018	Paper presentation contest
Low Cost Biotic Semi Permeable Membrane Using FPW	Mr. Pavan A	CII- YOUNG INDIANS	25/03/2019	Startup Challenge
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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
No Data Entered/Not Applicable !!!					
View File					

3.3 – Research Publications and Awards

3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
	4	

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	3
Mechanical Engineering	2

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	Computer Science	76	5.8

	and Engineering		
International	MBA	2	5.64
International	Information Science and Engineering	15	6.04
International	Physics	6	0.8
International	Aeronautical Engineering	11	3.2
International	Chemical Engineering	20	6.3
International	Chemistry	2	4
View File			

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
Mechanical Engineering	2
Phycis	1
MBA	2
Information Science and Engineering	15
Electrical and Electronics Engineering	4
Electronics and Communication Engineering	49
Computer Science and Engineering	106
Aeronautical Engineering	12
View File	

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
No Data Entered/Not Applicable !!!						
View File						

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
Z-Scan Studies on organic crystal (E)-1-(2-chlorobenzylidene) cyclododecane-1-one for	D.Bharath, D.Anbuselvi, S.Kalainathan	Materials Today: Proceedings	2019	4	0	MVJ COLLEGE OF ENGINEERING

photonic applications						
Simulation and Experimental studies of twin thermoacoustic prime mover	Krishna Moorthy v, uma, jaanaki S.M,N.M. hariharan, S.kasthuri rengan	International journal of Engineering and advanced technology,	2018	3	0	MVJ COLLEGE OF ENGINEERING
No file uploaded.						

3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	8	39	3	21
Presented papers	117	8	0	8
Resource persons	0	2	0	1
View File				

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
Women Empowerment Development Program	Entrepreneurship Development Cell	100	500
Engineers day	NSS UNIT OF MVJCE	150	1000
Plastic Awareness Program	NSS UNIT OF MVJCE	50	200
Awareness on Road Safety	MASH Foundation/ NSS UNIT OF MVJCE	50	700
NSS Orientation Program	NSS UNIT OF MVJCE	20	1000
Republic Day Celebration	NSS UNIT OF MVJCE	220	1500
Independence Day Celebration	NSS UNIT OF MVJCE	200	1400
Job Fair for Disabilities	We Are Your Voice/ NSS UNIT OF MVJCE	5	150
DRUG AWARENESS PROGRAM	Kadugodi Police Station, Bangalore/ NSS UNIT OF MVJCE	50	1500
Anti Drug Campaign	Helping Hearts, the CSR Arm of G Group/NSS UNIT OF	10	100

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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
No Data Entered/Not Applicable !!!			
View File			

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
Gender Issue	Women Empowerment Cell	Awareness event on Women Rights Protection by PARIHAR	2	400
Gender Issue	Women Empowerment Cell	Gender Awareness Raising	150	1000
Swachh Bharat	NSS and Eco Club of MVJCE	School Visit	2	30
Swachh Bharat	We Are Your Voice/ NSS UNIT OF MVJCE	Job Fair for Disabilities	5	150
DRUG AWARENESS	Kadugodi Police Station, Bangalore/ NSS UNIT OF MVJCE	DRUG AWARENESS PROGRAM	50	1500
DRUG AWARENESS	Helping Hearts, the CSR Arm of G Group/NSS UNIT OF MVJCE	Anti Drug Campaign	10	100
Swachh Bharat	MASH Foundation/ NSS UNIT OF MVJCE	Awareness on Road Safety	50	700
Gender Issue	Women Empowerment Cell	Women Empowerment Development Program	100	500
Swachh Bharat	NSS UNIT OF MVJCE	Plastic Awareness Program	50	200
Swachh Bharat	NSS UNIT OF MVJCE	Dengue Awareness Program	50	300
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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
Workshop on Creative Thinking, Innovation and Problem Solving	85	MVJ College of Engineering	3
FDP on Advanced Research Trends in Speech and Image Processing	43	AICTE	5
Workshop on IPR for students and Faculty Members	186	MVJ College of Engineering	1
Three- Day Faculty Development Programme on Application of Tools Techniques in Research Methodology	44	MVJ College of Engineering	3
Workshop on Creative Thinking, Innovation and Problem Solving	60	MVJ College of Engineering	3
No file uploaded.			

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
No Data Entered/Not Applicable !!!					
View File					

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
Shriram Institute for Industrial Research	18/03/2019	Research, Student Projects, industrial visit, joint technical activities etc	120
Excel MEP Academy	25/04/2019	To provide national skill qualification to the students	25
Livewire Whitefield	25/04/2019	To provide national	30

		skill qualification to the students	
Jp Creations	25/04/2019	To provide national skill qualification to the students	25
Jetking Infotrain Pvt. Ltd	25/04/2019	To provide national skill qualification to the students	25
No file uploaded.			

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
172.5	164.26

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Laboratories	Newly Added
View File	

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 patially)	Version	Year of automation
CERP	Fully	2.1.7	2018

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	69266	20926399	446	511367	69712	21437766
Reference Books	8864	3013904	10	4854	8874	3018758
View File						

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
Seshadri Kumar	Momentum Transfer	Power Point Presentation	01/08/2018
SYED MOHSIN	INTRODUCTION TO AIRCRAFT PROPULSION	Power Point Presentation	01/08/2018
Nisha M	Building Materials and Construction	Power Point Presentation	01/08/2018

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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	1308	1026	60	0	18	44	160	100	0
Added	0	0	0	0	0	0	0	100	0
Total	1308	1026	60	0	18	44	160	200	0

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

200 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
LMS	http://27.250.33.123/

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
145.8	138.84	384.6	366.28

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)

The institution has the structured system for maintaining and utilizing the facilities available. MVJCE (<http://www.mvjce.edu.in/facilities/>) Facility management team maintains the physical and academic support facilities. The various responsibilities of the team are housekeeping activities, maintenance of Garden, pest control, entire campus snag work etc. MVJCE deployed four location supervisors across the campus. Each location supervisor will report to the maintenance manager regarding his observations on electrical, plumbing, and housekeeping related issues/complaints. A logbook is maintained for the same. Once the complained is received, the project manager addresses the issue immediately and rectifies it. The college provides transportation facilities for its faculties and students. A transport committee is constituted to address and rectify any transport related issues. The security of the institute is taken care by in house security guards with the help of an external private agency in two shifts round the clock. There is a centralized generator (two generators of 380KVA and 200KVA) to support entire college. The UPS facility is provided in the institute so that the power failure will not cause any damage. There is one RO plant in the college to ensure the quality of the drinking water. Computer Maintenance and Utilization Available computers are distributed in departments, labs, office, library and administrative work as per the requirement. A high speed internet facility is also provided. IT help desk is functioning in the campus for resolving the issues like hard ware trouble shooting, software installation, Maintaining Biometric devices and network

related issues are monitored and maintained. The complaints are posted through E-mail (ithelpdesk@mvjce.edu.in) are addressed and resolved immediately. Library maintenance and Utilization The library users need to present the library photo ID card for the transactions. They can borrow two books for a period of 14 days. It is a fully automated Library and one can search the Library database using the college network. The Library has a Circulation section, a Reference section and a spacious Reading room. The Digital Library section houses a good number of computers for browsing, accessing e-journals, e-books and for searching the Library database using OPAC There is regular stock verification process carried out by the library. Physical verification of the library stock is the process by which the accession register is tallied with the books in the library. It gives the overall picture of the available documents in the library. Stock verification provides opportunities to weed out long unused, very old editions of the books from the library. It also leads to the cleaning and dusting of books and thus preventing their deterioration. All the torn and old books which could not be used for circulation has been kept separately. There is a Library advisory committee which helps in guiding the library for effective services. The library committee meets at regular intervals for selection of books and other Library material. They also suggest ways and means to improve the services. The files relevant to Library and Library services are well maintained and labeled for easy access to any of the

<http://www.mvjce.edu.in/facilities/>

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
No Data Entered/Not Applicable !!!			
View File			

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 enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
Guidance for Competitive exams	01/08/2018	1790	Allen career Institute
Career Counselling	01/08/2018	926	Align Learning unlimited
Soft Skill Development(PDP)	01/08/2018	3774	Align Learning unlimited
Soft Skill Development(Apti)	01/08/2018	3774	Quantech Origin
Remedial Coaching	15/10/2018	500	MVJCE
Language Lab(English)	01/08/2018	3591	Edu lib
Language Lab(Kannada)	01/08/2018	3591	MVJCE
Bridge Courses(NI Lab)	01/08/2018	13	National Instruments, Bangalore
Bridge Courses(Robo)	01/08/2018	230	Robo lab

Lab)			Technologies
Tomorrow's Engineers, Foundation Skills in Integrated Product Development (FSIPD)	01/08/2018	160	Dr Sudhakar, Professor (Retd), IIT Bombay Faculty of MVJCE
View File			

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
2018	Pdp class, Guidance for competitive examinations, Career Counseling, Aptitude	3774	3774	20	425
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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
0	0	0

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
MicroFocus	174	4	TCS	432	58
View File					

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
2019	1	BE	CHEMICAL ENGINEERING	BMSCE	M.TECH
2019	4	BE	CSE	1. Bangalore Institute of Technology, Bangalore 2. New Horizon	M.TECH

				College, Bangalore 3. University of Texas, Houston 4. Princeton University	
2019	8	BE	CIVIL ENGINEERING	•VTU (4) • BUB (2) • NICMAR (1) • Sheffield Hallam University (1)	M S/ M.TECH
2019	1	BE	EEE	NIE, Mysore	M.TECH
2018	1	BE	ISE	UVCE	M.TECH
2019	2	BE	MEDICAL ELECTRONICS	1.Trinity college, Dublin 2.BMS college of Engineering	M S/ M.TECH
2019	9	BE	ECE	San Jose State University, California, USA USF, South Florida, USA Oregon State University Arizona State University U SC- University of southern California Amrita Viswa vidyapeetam, Bangalore JSS ACADEMY OF TECHNICAL EDUCATION, BANGALORE CMR UNIVERSITY	San Jose State University, California, USA USF, South Florida, USA Oregon State University Arizona State University U SC- University of southern California Amrita Viswa vidyapeetam, Bangalore JSS ACADEMY OF TECHNICAL EDUCATION, BANGALORE CMR UNIVERSITY
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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	7
SLET	5
GRE	2

TOFEL	4
Any Other	3
View File	

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

Activity	Level	Number of Participants
BEST PHYSIQUE	VTU Inter Collegiate Single Zone Best Physique Tournament	1
JUDO	VTU-Single Zone Competition	3
WRESTLING	VTU-Single Zone Competition	2
SWAYAM	National level cultural fest	500
MVJ CRICKET TOURNAMENT	Inter College Sports Meet	256
View File		

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
2018	2nd Prize	National	0	1	1MJ17CH004	Amal Kamal
2019	3rd Prize	National	0	1	1MJ16CH005	1MJ16CH005 Adithya Prabhu
2018	2nd place for streetplay	National	0	1	1MJ17EC015	Anurag B M
2019	1st place	National	0	1	1MJ17EC015	Anurag B M
2018	2nd place for best physique	National	1	0	1MJ16EC024	B Vamsi Krishna
2019	2nd place for wrestling	National	1	0	1MJ16EC024	B Vamsi Krishna
2019	1st place for mime	National	0	1	1MJ18CS062	Krishna kamal
2019	Pro Karting Ch ampionship Season-3	National	4	0	1MJ16ME039 1MJ15ME002 1MJ16ME062 1MJ17ME068	Mohan K M Abhi karthik P P Prasad bhat Kiran deshmukh
2019	2nd Place Silver Medal	National	1	0	MJ16EC024	B Vamsi Krishna

2019	3rd Place 3 Bronze	National	3	0	1MJ16ME409 1MJ16EC024 1MJ17CV056	Kiran H D B Vamsi Krishna Ranjan S
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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)

STUDENTS PARTICIPATION IN ACTIVITIES The institution does not have a student council, but there are societies / clubs the heads of which are part of council which oversee all the cultural activities MVJCE. Similarly, the head of the technical clubs are responsible for all technical activities at MVJCE. The objective is to make the students participate in the development of the institute as well as in the process develop their personality, organizational skills and career through interactive programs with the faculty, administration and society. The goal of the student council is to provide a common platform to students for co-curricular and extra-curricular activities. It is responsible for all the major technical, cultural, literary and sports activities organized in the college premises. Activities under the council will be well supported by a team of faculty members. Every class has a class committee which consists of the students and faculty members. Class committee sets the rules and regulations for the class behavior. It serves as the voice of the students in front of faculty and has say in academic matter such as conduct of test and so on. Class committee meets twice a semester. The institution also provides avenues for the development of technical skills, updating knowledge, personality development and service to the society through various technical clubs/societies

ANTI-RAGGING COMMITTEE Institution imparting technical education shall constitute a Committee to be known as the Anti-ragging Committee to be nominated and headed by the Head of the Institution, and consisting of representatives of civil and police administration, local media, Non-Government Organizations involved in youth activities, representatives of faculty members, representatives of parents, representatives of students belonging to the fresher's category as well as senior students, non-teaching staff and shall have a diverse mix of membership in terms of level as well as gender. The anti-ragging committee of MVJCE is constituted as per the guidelines of All India Council for Technical Education. The following is the composition of the committee. All Head of the Departments Hostel chief warden Student coordinators Inspector of Police, Kadugodi Police station, Bengaluru

The awards and punishments are affected as per the guidelines of AICTE, Government orders and judgments given by courts of India from time to time.

ANTI-SEXUAL HARASSMENT COMMITTEE The College has constituted anti-sexual harassment committee comprising of senior faculty members and students for preventing any act of sexual harassment.

STUDENT GRIEVANCE REDRESSAL COMMITTEE A redressal committee functions in the institution. Following are the functions of redressal committee, To receive the grievance in person. To analyze and examine the nature of grievance. To deliberate with the members of committee and call for remarks if necessary To resolve the issues impartially.

OTHER CLUBS DETAILS: IQAC DAC Software Development club Astronomy club Women Empowerment Cell Internal Compliance Committee Tomorrows Engineers Club Sports committee Anti-ragging Committee Entrepreneur Development Cell (EDC) Hostel Committee Health and Hygiene Club Music Club Dance Club Theater Club IEEE student Chapter IETE Literary Club.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

Batch Name Branch Designation Organization President 1996-2000 K A CHANDRAKANTH
CSE Director, Consulting Services Neudesic Vice President 1991-1995 Leni
Davidson MECH Head-QA EHS Lincoln Helios India Ltd General Secretary 1997-2001
KARTHIK GOPALAKRISHNAN CSE Vice president Gartner Treasurer 2010-2014
VENKATESHWAR G ECE Associate Cognizant Technology Solution

5.4.2 – No. of enrolled Alumni:

22000

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

25000

5.4.4 – Meetings/activities organized by Alumni Association :

1. Conducted Alumni Meet on 19th May 2019. 2. Conducted Job fair for Disable students 3. Departmental level Alumni interactions were conducted regularly.

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)

The institution defines the decentralization in working through delegation of authority. The college does promote a culture of participative management. In all academic and non-academic activities, college is following participative management. The Institute follows committee system for implementation of all its decisions. Two practices of decentralization and participative management during 2018-2019 academic year are strengthening the activities of Research and Development Cell and Strengthening the activities of Career Guidance Cell (CGC) in the institution . ?1. IQAC has initiated the formation of Research and development council in the institution. There is at least one representative from each department. The Research and Development Cell helps to ?Scrutinize minor and major research project proposals for submission to funding organizations such as UGC, AICTE, DST, DRDO etc. ?Monitor and assess the progress of sponsored research projects. ?Review and monitor academic progress of candidates registered for Ph.D. /M. Tech./M.Sc. ?Advise and arrange Seminars / Conferences / Workshops. ?Promote and encourage interdisciplinary research. ?Establish technology incubation centres/ Research centres/ Centres of excellence. ?Advise the faculty and find the suitability of research results for journal publication/ patenting/ product generation/ solve societal problems. ?Encourage young faculty members to register for Ph.D. in the College or at various reputed academic institutes ? The Research and Development council meetings are held twice in a month. The college has got grants for conducting Faculty Development Program (FDP) and for doing projects from different agencies like VGST, KSCST, CSIR, AICTE, DRDO, ISRO, IICChE. During the 2018-2019 academic year the improvements have been done in the following areas: Research funds sanctioned and received from various agencies, industry and other organisations is Rs. 21,91,250 Research Publications in the Journals notified on UGC website during the year is 196. Number of patents applied is 11. ?2. IQAC has also initiated the formation of Career Guidance Cell (CGC) in the institution. The Career Guidance Cell is intended primarily to assist students in their career planning and provides information that helps the students to give a direction to their aspirations and interests. The CGC believes in timely counselling and arranging training sessions that enhances the students to compete with the best challenges in Industry. Career counselling programs are undertaken periodically by the placement coordinator to guide the students. Interactive sessions by the eminent persons in respective fields are conducted regularly. The placement coordinators of each

department and career Guidance cell work hand in hand for assisting the students in career planning. Placement and CGC department at MVJCE is continuously in touch with the corporate to make the students employable and stand out in a competitive employment market. They also helps the students to qualify in the competitive exams. For the academic year 2018-2019 , out of 900 students 425 students are placed and 27 students are aspiring higher education.

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
Curriculum Development	MVJ college of Engineering is affiliated to Visvesvaraya Technological University Belagavi it abides by the changes in curriculum as prescribed by the university. The academic council committee meets every semester to identify the gaps in the curriculum and look at courses/lectures that need to be augmented to the curriculum to bridge the gap. The output of this meeting would be add-on courses, guest lecturers / workshops and enhanced laboratory experiments, thereby making the students industry ready.
Teaching and Learning	The following are some of the TLP incorporated in the institution: <ul style="list-style-type: none"> • Semester plan is prepared in accordance with the academic calendar published by the university prior to the start of a semester. • Periodic interaction with mentees is carried out for addressing issues of individual student. • Industrial visits and internships are conducted to increase the industry academia relationship. • Students' performance is monitored through continuous assessment. • Guest Lectures/top up lectures, Seminars, Workshops and Conferences are being conducted to bridge curriculum gaps and to give exposure to content beyond syllabus. • Monitoring the teaching process through online feedback from students, Academic Audit by peer committee and Academic Council Meeting.
Examination and Evaluation	The Institute is affiliated to VTU, Belagavi. The rules and regulations for evaluation process are laid down by the affiliating University and are communicated to students through syllabus copies supplied in the beginning of first year of their

academic program. The Institute has a Centralized Internal Evaluation Cell. MVJCE Centralized Internal Assessment Section is headed by the Principal and assist by Exam Section Co-coordinator. An internal assessment test committee is established in the campus with Principal as the head and representatives from all the departments as IA coordinators. IA Committee Meetings are conducting on regular basis.

Research and Development

Research and Development Cell is formed to promote Research and Development in the institute. The cell includes faculty, academicians and researchers. The cell meets once in a fortnight and delivers guidelines for quality improvement in R D. • The institute motivates the faculty to undertake research projects in VGST, KSCST, CSIR, AICTE, DRDO, ISRO, IICHE. • The institute motivates the faculty and students to file patents for the research work. • The Institute has been recognized by the VTU as a research centre for many departments. The Institute encourages faculty members to do publications in journals and conferences.

Library, ICT and Physical Infrastructure / Instrumentation

Library • IEEE institutional login enables the faculty and students for their academic and research works. • New books/journals are purchased every year to update the library. • Each Department has its own Library facility that includes text books, project and research papers published. ICT • The institute regularly increases ICT facilities for classrooms, tutorial rooms, seminar halls and Laboratories. • The institute regularly enhances the Internet connectivity facility. Physical Infrastructure ? Physical infrastructure is able to meet the current requirements of the students, faculty members and staff. ? Providing the various amenities such as canteen, indoor and outdoor game facilities, Gym centre, medical centre, hostels and transport. ? CCTV cameras have been installed within and around the campus for security purposes.

Human Resource Management

Manpower planning is carried out in the beginning of every academic year by considering the faculty workload in each department. The HoDs prepare the

department workload as per the guidelines for the coming academic year. A copy of the consolidated faculty requirement, along with a copy of the approved department faculty workload, is submitted to the Principal by the Heads of departments. The institute also uses performance evaluation methods for the staff members. At the end of every year, performance evaluation of the staff is done by Head of the Institution. This is used for deciding promotions and increments.

Industry Interaction / Collaboration

- MoUs had been signed with companies like National Instruments, Edgate technologies, Robolab Technologies, Avian Aerospace, Sansera Engineering, Flow and Force engineers.
- Industrial visits to companies like ISRO, BSNL, DRDO, HP is organised to understand the real time scenario.
- Infosys Campus Connect programme to enrich faculty and students in the market trend.
- Orientation programmes and guest lectures are conducted for the students by the Industry experts.
- Alumni placed in the reputed industries are also invited for providing an insight to the needs of the industry. Industry day was organized on 24th August 2019 to showcase the students technical knowledge to the industrialists, academicians and alumni.

Admission of Students

- Admission of the students is through CET entrance exam.
- Admissions for Management Seats is through any of these entrance exams- CET, JEE mains, COMEDK AMPCK
- The institute maintains its repute by adopting following strategies:
- Maintaining good results in University examinations by means of recent trends of teaching learning, providing quality infrastructure and facilities, maintaining good training and placement track records.
- Encouraging extra-curricular activities like sports and other competitions.
- Maintaining Ragging-free environment.

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

E-governance area	Details
Planning and Development	LIBSOFT INFORMATICS PUBLISHING LIMITED for Digitalization in library LDS INFOTECH : ANTI VIRUS SOFTWARE
Administration	Staff support CERP Software : EFFIA

	Staff attendance biometric punching: Matrix COSCEC
Finance and Accounts	Tally software
Student Admission and Support	Student biometric attendance :EFFIA SOFTVENT SERVICES PVT LTD: Student attendance tracker Globberina Technologies Pvt Ltd: EDU LIB software for tracking for library usage by student
Examination	CERP Software - for entering the internal marks Student examination fee payment: HDFC online

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
No Data Entered/Not Applicable !!!				
View File				

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)
No Data Entered/Not Applicable !!!						
View File						

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
No Data Entered/Not Applicable !!!				
View File				

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

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
233	0	197	0

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students

<p>Casual Leave of 12 days per year, Vacation leave of 15 days in a semester. On duty facility (OOD) for attending workshops /conferences/seminars. EPF, Group Medical Insurance, financial support for attending conferences/ workshops/ seminars, medical facility, Medical Leave is for 7 days. Paid Maternity leave to the women employees, for a period of 90 days and paid Paternity leaves for 3 days, Canteen facility, Transport facility at subsidized rate</p>	<p>Casual Leave of 12 days per year, Vacation leave 7 days in a semester, Group Medical Insurance, financial support for pursuing skill development, EPF, Uniform is also being provided for instructors, drivers, attenders, and securities. Canteen facility, Transport facility at a subsidized rate</p>	<p>Medical Insurance, Scholarships, Financial support for paper presentations, Cash prize awarded to university level toppers, college level toppers and students who have acquired 100 marks in university level examination, Recognition for students who have won in College/Inter collegiate/ University/Sports, Transport facility at subsidized rate</p>
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6.4 – Financial Management and Resource Mobilization

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

Institution conducts internal and external financial audits regularly. Audit will be conducted at the end of each financial year. The auditors will visit to college at regular intervals, they will verify all financial transaction with the supporting documents and approval of proper authority for each financial transaction. The financial transactions are accounted in Tally ERP by the college. Audit is conducted in accordance with the Auditing standards generally accepted in India. They plan and perform procedure to obtain the reasonable assurance about whether the financial statements are free from material misstatements. Auditor will examine on a test basis evidences, supporting for the amounts and disclosure in the financial statements. It also includes assessing the accounting principles used and management estimates and evaluation of overall financial statements presentation. Based on such audit, will issue audit report of for True and Fair view on the financial statements.

Audit procedures: 1. Source of income verification: Auditor will cross verify the fee collections with approved list of students like: List of students with KEA list for the first year CET admission students and list sent to VTU for the first year management admission student. Eligibility list of students approved and sent to VTU for higher semester students. Other incomes cross verified with the receipts issued to the students. Fee amount receivable and amount received will be reconciled. Checking Grants received if any. 2. Expenses Vouching: Auditor will vouch payment with the approved supporting. Correctness of Classification revenue and capital expenses. Reconciliation of bank accounts and checking the bank confirmations. Reconfirmation of un reconciled items. Calculation of depreciation of fixed assets. Status of the old debit/ credit balances. Checking of statutory dues payment like PF, TDS, PT and ESI before the due dates. Salaries payments with the salary statements. Any other statutory compliances verification required as per Income Tax Act. Page 97/133 23-01-2018 11:30:09 Self Study Report of MVJ college of Engineering 3. On such verification any discrepancies will be discussed and sorted with the management. Any changes will be incorporated into. 4. One all financial transactions are accounted and based on that financial statements like Balance sheet and Income and Expenditure for the financial year end. 5. Such financial statements will be signed and approved by Auditor and Management. Based on the audited financial statements, auditor will issue " Audit Report"

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
No Data Entered/Not Applicable !!!		
View File		

6.4.3 – Total corpus fund generated

490874

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	VTU -Local Inquiry Committee	Yes	IQAC
Administrative	Yes	VTU- Local Inquiry Committee	Yes	IQAC

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

• Parent teacher meeting is being conducted once in every semester. Student’s academic performance, attendance and other related issues are discussed • Feedback from parents are being taken on curriculum, general facilities and teaching learning process. Based on the feedback action is also taken. • Progress reports (including attendance and marks) are being send to the parents after every internal assessment.

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

• To improve the skill of the support staff, the college deutes the members of the staff to undergo training and workshops organized by other institutions. • In house training programme are also arranged by various departments to cater to the needs of the support staff. For upgrading the skills in computer, workshops on MS office have been conducted. • Workshops for stress management, health management are also being conducted.

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

To get Autonomous status Increase the number of Innovative projects by students and to enhance number of patents. 10 provisional patents have been filed. Strengthening Teaching learning process by Innovative teaching methods like flip class, Animated videos, Case studies, Mini projects, group learning, etc.,

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes
c)ISO certification	No
d)NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality	Date of	Duration From	Duration To	Number of
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	initiative by IQAC	conducting IQAC			participants
No Data Entered/Not Applicable !!!					
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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
Empowering Children Against Abuse	25/08/2018	25/08/2018	58	29
MVJ STAFF SPORTS 2019	30/01/2019	31/01/2019	215	120
WOMEN'S DAY CELEBRATION	08/03/2019	08/03/2019	220	182
An Awareness Event on Women's Rights & Protection by PARIHAR	11/04/2019	11/04/2019	234	130

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
The year 2018-19 Power requirement met by renewable energy source is in progress. Total Power requirement 400 KVA Total lighting requirements 27.3 KW Percentage lighting through LED bulbs 45 Percentage Lighting through other sources 55

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	50
Provision for lift	Yes	50
Ramp/Rails	Yes	50
Braille Software/facilities	Yes	0
Rest Rooms	Yes	50
Scribes for examination	Yes	0
Special skill development for differently abled students	Yes	0
Any other similar facility	Yes	50

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to	Number of initiatives	Date	Duration	Name of initiative	Issues addressed	Number of participating
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	address locational advantages and disadvantages	taken to engage with and contribute to local community					students and staff
2019	1	1	29/03/2019	2	Awareness on Road Safety and First Aid Training	Road accident deaths among young adults	300
2019	1	1	29/04/2019	2	International Conference on Advanced Research in Mechanical Engineering	Participants from different parts of the world attended.	200
2019	1	1	02/05/2019	1	International Conference on Design Innovation for 3Cs - Compute, Communicate and Control	Participants from different parts of the world attended.	104
2018	1	1	13/10/2018	8	Soft skill training Visit to Orphanage	Uplifting the under privileged	55
2018	1	1	15/12/2018	1	Anti-Drug Walkthon	Drug Abuse	125
2019	1	1	24/02/2019	1	We Are Your Voice-2019	Job Fair for Persons with Disabilities	162
2019	1	1	25/03/2019	5	NSS Special Camp-2019, Sharmadha program at KalkunteAgrahara	Soft skill training, School campus cleaning, Tree plantation, Awareness of different schemes.	120
2019	1	1	27/09/2019	1	Anti Drug Campaign	Drug Abuse	134

					at Phonix Market City		
2018	1	1	07/09/2018	1	Plantation of trees, cleaning the campus and community near the college	Pollution	250
2018	1	1	16/10/2018	1	Model making on environmental protection(Water Technology)	Water Scarcity	150
View File							

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

Title	Date of publication	Follow up(max 100 words)
CODE OF CONDUCT AND DISCIPLINE FOR STUDENTS	02/02/2018	The guidelines are given in the college website and academic hand book: <ul style="list-style-type: none"> • Students are advised to wear descent formal dresses and not in casual. • Smoking, use of alcohol, use of hallucinogenic drugs and narcotics consuming non vegetarian food is strictly prohibited in the campus. • Students should not misuse facilities in the campus. • Use of Mobile phones is strictly prohibited inside the campus. • Ragging in any form is strictly prohibited and is considered a serious offence. • Malpractices committed in Examinations by the students, shall be viewed seriously.
CODE OF CONDUCT FOR FACULTY, GOVERNING BODY AND ADMINISTRATION	02/02/2018	This policy applies to all our employees regardless of employment agreement or rank. POLICY ELEMENTS Institution employees are bound by their contract to follow

our Employee Code of Conduct while performing their duties. We outline the components of our Code of Conduct below:

- Compliance with law
- Respect in the workplace
 - Protection of Institution's Property
- Employees:
 - Shouldn't misuse Institution's equipment or use it frivolously.
 - Should respect all kinds of incorporeal property.
- Professionalism
- Personal appearance
- Corruption
- Job duties and authority
- Absenteeism and tardiness
- Conflict of interest
- Collaboration
- Communication
- Benefits
- Policies

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Awareness by Anti razing squad and their activities	01/08/2018	01/08/2018	750
Presentation and awareness on drug, Anti sexual harassment squad and their activities	03/08/2018	03/08/2018	800
Awareness on Constitution, moral and ethical values	05/08/2018	05/08/2018	850
Teacher's Day	05/09/2018	05/09/2018	80
Session on Patriotism, honesty, privilege and confidence	21/09/2018	21/09/2018	800
World Mental Health Day	10/10/2018	10/10/2018	30
Universal Human Values and Goal Setting	25/02/2019	25/02/2019	850
Awareness on IPR	05/03/2019	05/03/2019	700
International Yoga Day -2019	21/06/2019	21/06/2019	250

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

Major Green Campus Initiatives 1. A green audit of the institute is conducted annually. 2. Planting trees is a continuous process in the campus through NSS activities. 3. The wastewater treatment unit is working well on the campus and the treated water is utilized for maintaining the green campus. 4. Rainwater harvesting and solid waste management. 5. The college has nurtured the number of trees of different varieties. 6. The campus calculates its overall carbon footprint. 7. Proposal to convert all other lightning facilities to LED bulbs where ever it possible within a few years. 8. MVJCE ECO Club with a tag line "GO GREEN FOR TOMORROW". NSS Unit and Eco Club of MVJCE has conducted "Campus Cleaning and Tree Plantation" on 07-09-18.

Bicycles: MVJCE is encouraging students and staff who are staying in a nearby college for bicycle transportation that is reducing both pollution and fuel usage.

Public Transport: The Majority of the MVJCE students and faculties are availing BMTC buses. College is providing bus facilities to the faculty members, non-teaching staff and students.

Pedestrian Friendly Roads: Pedestrian Friendly roads in MVJCE is enabling pedestrians and cyclists to travel safely and freely in the campus. Installation of speed humps in the campus road is done to improve traffic and pedestrian safety.

Plastic-free campus: MVJCE is a plastic-free campus. NSS Unit has organized programs to create awareness of the harmful effects of plastics.

Paperless office: The college emphasizes the paperless office to save carbon emission in printers. Reuse of one -side paper printouts is also being done. Now, most of the work is paperless as the college has been utilizing CERP software. Smart attendance system for students and staff with the use of biometric. SMS Alert facility to parents regarding their ward's daily attendance and Internal exam marks.

Total expenditure on green initiatives and waste management excluding salary component year wise during the last year (INR in Lakhs). In the year 2018-2019 Budget allocated for green initiatives 34,60,000 Total Expenditure on green initiatives and waste management excluding 40,72,201 salary component

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

Title of the Practice: The Tomorrow's Engineers Club **Objectives:** The Tomorrow's Engineers club is a college affiliated club which provides opportunities for students to interact with other fellow students from various engineering disciplines and develop team spirit, leadership and practical skills. This is a platform for MVJCE students to be successful inside and outside the class room. The Tomorrow's Engineers club is to take up Engineering studies as a team sport. It is helping to get involved with other fellow students and discover new areas of interest. It is helping our students to think out of the box and enhance problem solving skills. The Tomorrow's Engineer's club is developing practical and leadership skills in students. It is having a network with professionals in and around Bangalore. **The Context:** We need more engineers for the betterment of society. For that we need more young students to understand how what they learn at college is used in the real world. Giving young people the chance to talk directly to engineers and engage in hands-on activities that showcase and contextualize engineering is at the heart of the Tomorrows Engineers approach. We have to explore the young engineering ideas, meet engineering researchers and professionals, and work on a hands-on engineering project. Here Interdisciplinary teaching and learning occurs when practitioners

from traditional disciplines join together to work on a common question. Interdisciplinary workshops allow for synthesis of ideas and the synthesis of characteristics from many disciplines. At the same time, it addresses students' individual differences and helps to develop important, transferable skills.

These skills, such as critical thinking, communication and analysis are important and continually developing at all stages of life. Educational systems are serving students best if they enable and encourage students to build their own interdisciplinary pathway. This approach is sure to foster a love of learning, ignite a spark of enthusiasm and address learning differences for students. The Practice: The Tomorrow's Engineers program brings together the engineering community in a collective drive to build the future generation of engineers needed by the industry. In MVJCE, every semester one workshop is organized by the Tomorrow's Engineer's club so that the students are getting an opportunity to think out of box. The Tomorrows Engineers club conducted a workshop on "The Problem solves skills -An innovative and creative approach". In that three-day workshop the student participants had an insight of 1. What is engineering? And marvels in engineering field. 2. Importance of problem solving skills, creativity and innovation in engineering. 3. A systematic approach towards problem solving. For inspiring and encouraging the students in the Tomorrow's Engineer's club, faculties from different departments are giving talk on different topics like, creativity and innovation, real time examples of creativity and innovation etc. Teams are presenting their ideas on the chosen open-ended problems. All the presentations by the students on open ended problems are having a societal impact. Student presentation on problems and the stakeholders are also involved in a problem. The "Tomorrows Engineers" Club organized a three-day workshop on "Societal Concerns and contribution to solve societal problems "under the workshop series on "Problem Solving skills -An innovative and Creative approach". In the series of Tomorrow's Engineer's club workshops, the participants understood the importance of problem solving skills and the role of engineer in society. Teams (with interdisciplinary participants) were formed and open ended problems were given to the teams. The participants had an insight on systematic approach to solve a problem. The teams were asked to find the solution for the open ended problem they chose. Then the teams presented their solutions to the jury. Finally the importance of stake holders in problem solving was made clear to the participants. The teams had to choose their own problem and identify stake holders for that problem. The challenges of sustainability and responding to climatic change define the careers of 21st century engineers. This workshop gave a platform to a new conception of engineers in order to meet these challenges. The open ended problems discussed in the 2018 workshops were. Team I - Heart Attack detection System Team II - Waste management Team III - Smart Helmet Team IV - Smart Vehicle safety system Team V - Braille Book Team VI - Solar amphibious vehicle Team VII - Kid E-track Team VIII - Smart Farming Team IX - Blind man's walking stick Team X - Organic sensor Team XI - Smog detection and removal, using drone Team XII - Smartect automation and security, using IoT Team XIII - AI based segmentation and classification of brain tumour With the idea of making MVJCE as a "Hub of Innovation", the college organized a three day intensive technical workshop on "Tomorrows Engineers" from from 23.8.2018 to 25.8.2018. About 85 students and 15 faculties of MVJ College of Engineering participated in the workshop. Recognizing the need for problem solving capability in the engineers of tomorrow, the Tomorrow's Engineers Club of MVJCE organized a 3-day Workshop on 'Creative Thinking, Innovation and Problem Solving', from 11th to 13th March, 2019. The workshop was inaugurated by the honourable Chief Guest Dr. B N Suresh, Chancellor and Founder Director, IIST, Thiruvananthapuram (Past President, INAE, Delhi, and Former Director, VSSC, Thiruvananthapuram), also chairman of Governing Council, MVJCE and the esteemed Resource Speaker Dr. K Sudhakar, Professor (Retd.), Department of Aerospace Engineering, IIT Bombay, on 11th March 2019, at 10:30am, in Smt. Rajalakshmi Jayaraman Seminar Hall,

MVJCE. Evidence of Success: The 'Tomorrow's Engineers' workshop is organizing for student participants from various streams of engineering so that they are allowed to learn by making connections between ideas and concepts across different disciplinary boundaries. The participants gained a good understanding of the societal / industrial problems they intend to solve, what the available solutions are, and how to approach the solution in a systematic, efficient and sustainable manner. The guests coming for workshops advised our budding engineers to design high-tech solutions in a low cost environment to meet Indian and global challenges. Regarding this approach, we are getting a very good feedback from the MVJCE student community. The Tomorrow's Engineer's club is enabling the students to develop complex and innovative thinking skills so that they can solve various open ended societal problems and finally framing them as entrepreneurs. The Tomorrow's Engineer's club is enabling the students to work in a team and it is improving the leadership quality of students. Such interaction is in support of the constructivist paradigm which allows for new knowledge construction and a deeper understanding of ideas than disciplinary study. Few problems that were selected in the workshops are already implemented. Critical thinking skills are used and developed as students look across disciplinary boundaries to consider other viewpoints and also begin to compare and contrast concepts across subject areas. Such interaction has been shown to promote constructivist learning, problem solving and innovative thinking so that our institution is reaching its vision. One innovative project from Tomorrow's Engineer's Club has been turned to a business idea. The Final year students of ECE department have developed a "Smart Helmet". The was devised, keeping in mind the increased number of causalities on roads, mining sites and construction sites. The smart helmet has an integrated accident detecting and alert system, along with this a GPS system. The basic function of the helmet is that whenever the wearer meets with an accident the helmet detects the accident with its location, this information is sent to the emergency personnel to ensure that help is provided on time. It has a physical switch which acts as an SOS (save our souls) button that they can use in case of other emergencies. It is also incorporated with helmet and gas detection (alcohol/toxic gas) technologies which ensure that the helmet is worn in a stable condition otherwise an alert is sent. The outer hard shell is made of a hard, sturdy, durable and light weight material. The helmets have MIPS (multi impact protection system) technology for better protection. To track, control and feed the helmet wirelessly a mobile application is developed. Helmets are connected to other external modules of application to enhance the functionality. This project was featured in Deccan Herald, New Indian Express and Drive Spark. Problems Encountered: NIL. Resources Required: Dedicated students who have creative ideas and faculties from different department to inspire, encourage and to support students in all ways. Future plans: Changing more projects into innovative business ideas by its implementation in MVJCE campus. Best Practice - 2 Title of the Practice: Tinkering Lab in MVJCE Objectives: MVJ College of Engineering had organized the inaugural function of Tinkering, Innovation and Entrepreneurship Ecosystem on Sep 24, 2016. The aim of installing and inaugurating tinkering lab is to promote innovation and entrepreneurship among students. The Tinkering Lab is established in MVJCE for encouraging students to innovate and discover the joy of creation. It is enabling the students to build large engineering devices, develop complex systems and represent MVJCE at various national and international competitions. It is helping the inventors and entrepreneurs to build prototypes of their ideas and generally "tinker" around

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

<https://www.mvjce.edu.in/tomorrows-engineers-club/>
<https://www.mvjce.edu.in/dev/tinkering-lab/>

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

MVJCE has a state of art infrastructure which has resulted in creating different technical labs which is giving priority to impart quality holistic education with international standards, that is focussing to the mission and vision of the institution. The following are the different programmes and labs that is deeply involved at all levels of the students' academic life, in order to fill the gap between the curriculum and industry it is pointing to the mission of the institution.

1. Infosys Campus Connect Campus Connect is an Infosys industry-academia partnership program aimed at enhancing the IT talent in College Campuses. MVJ college of Engineering joined with Infosys as a partner college by entering the MOU on January 25, 2011 with respect to enriching the technical education process. The program started with an aim of evolving a model with engineering colleges to build a vibrant talent pool, which is IT industry ready. The core of the CC program is the Foundation Program (FP) which will be conducted for pre-final year students for both IT and Non-IT branches.
2. Nodal Centre - IIT Bombay Spoken Tutorial MVJCE has been identified as Nodal Centre for IIT Bombay - Spoken Tutorial. Spoken Tutorial Project is an initiative from IIT-Bombay, supported by NMEICT, MHRD, and Government of India. The learning technologies available under this centre are open to all branches of Engineering. During this 2018-19 Even semester, Spoken Tutorial courses were conducted on C/CPP, JAVA, PYTHON, OPENFOAM, ARDUINO, LATEX, RDBMS, LIBRE OFFICE TOOLS, SCILAB, DWSIM, INTRODUCTION TO COMPUTERS, PERL, QCAD, PHP AND MYSQL.
3. Robotics and Industrial Automation Centre MVJCE established Robotics Centre in 2016. The lab is well equipped with all the advanced tools and equipment like 3D Printers, PCB Printers, Pneumatic Machines etc to cater the needs of the students to execute their innovative ideas. Industry level trainings are also being part of the laboratory exercise to the students in different levels. The research activities in this lab focus on new generation mechatronics systems, smart sensors, embedded systems, artificial intelligence and machine learning. Braille Pad, Smart Helmet, 3D printer, e-MAD drone, dBook are the few projects got more attraction and appreciation among the technical expert communities.
4. Student Development Programme On Foundation Skill In Integrated Product Development" (FSIPD) FSIPD aimed at setting the new standards for knowledge sharing between the industry and the educational institutions and has contributed significantly towards strengthening the knowledge economy itself. MVJCE works on the students' skill focusing on practical exposure to them through programmes such as Industry Academia Conclave, Foundation Skills for Integrated Product Development Programme and Quality Circles for bridging employability gap. Various workshops on the Foundation Skills for Integrated Product Development Programme are given by industrial experts to a group of faculty members and subsequently students are trained on product development.
5. Entrepreneurship Development Cell at MVJCE MVJCE's EDC is organizing seminars and workshops to motivate those engineers that hope to follow entrepreneurial paths. EDC has created a platform named Idea Box linked to our website which

Provide the weblink of the institution

<https://www.mvjce.edu.in/infosys-campus-connect/> <https://www.mvjce.edu.in/nodal-centre-iit-bombay-spoken-club/> <https://www.mvjce.edu.in/robotics-and-industrial-automation/> <https://www.mvjce.edu.in/student-development-program-foundation-skill-integ>

8.Future Plans of Actions for Next Academic Year

1. To organize Industry day in a bigger level. 2. Establish Labs in association

with Industries 3. To start Certification courses 4. Train faculty members in thrust areas like IoT, Artificial Intelligence, Machine Learning, Cyber Security, Blockchain, Robotics, 3D Printing, etc., 5. To set up start ups by motivating students to do innovative projects 6. To set up Scheme and syllabus for Autonomous to bridge gap between Industry and Academia to prepare students industry ready 7. To develop sustainable solutions for societal problems through Students projects