



Yearly Status Report - 2019-2020

Part A

Data of the Institution

1. Name of the Institution	FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING
Name of the head of the Institution	Dr. Srija Unnikrishnan
Designation	Principal
Does the Institution function from own campus	Yes
Phone no/Alternate Phone no.	+912267114101
Mobile no.	9869005457
Registered Email	srija@frcrce.ac.in
Alternate Email	crce@frcrce.ac.in
Address	Fr. Agnel Ashram, Bandstand, Bandra (West)
City/Town	Mumbai
State/UT	Maharashtra
Pincode	400050

2. Institutional Status					
Affiliated / Constituent		Affiliated			
Type of Institution		Co-education			
Location		Urban			
Financial Status		Self financed			
Name of the IQAC co-ordinator/Director		Dr. Sunil Surve			
Phone no/Alternate Phone no.		+912267114313			
Mobile no.		9167635546			
Registered Email		surve@fragnel.edu.in			
Alternate Email		crce@frcrce.ac.in			
3. Website Address					
Web-link of the AQAR: (Previous Academic Year)		http://frcrce.ac.in/index.php/academics/naac/naac-19-20/category/97-extended-profiles1920?download=600:parta-3-previousaqar			
4. Whether Academic Calendar prepared during the year		Yes			
if yes,whether it is uploaded in the institutional website: Weblink :		http://www.frcrce.ac.in/index.php/academics/academic-calendar			
5. Accrediation Details					
Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	B++	2.9	2019	11-Mar-2020	10-Mar-2025
6. Date of Establishment of IQAC			10-Jan-2017		
7. Internal Quality Assurance System					
Quality initiatives by IQAC during the year for promoting quality culture					
Item /Title of the quality initiative by		Date & Duration		Number of participants/ beneficiaries	

IQAC		
IPR & IP Management for Innovation and Start-ups	23-Jan-2020 1	156
Idea validation, Business Opportunity Identification and Business Model Development	05-Aug-2020 1	50
IIC-National Innovation contest	06-Jun-2020 15	85
Women in Entrepreneurship	12-Apr-2020 1	75
Internship Expo 2020	29-Feb-2020 1	80
Idea Competition	22-Jan-2020 1	150
Advanced Deep Learning Workshop	15-Dec-2019 5	55
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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
Fr. CRCE	AICTE quality improvement scheme	AICTE	2020 2	248300
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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 :	1
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)

Project Based Learning

Research Publication by students

[View File](#)**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
Promoting research culture among students	In academic year 2019-20, 43 papers published by the students
Promoting Innovation, entrepreneurship:	24 Project teams to participate in Innovation Challenge Design Contest (IICDC) project competition
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14. Whether AQAR was placed before statutory body ?

No

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?

No

16. Whether institutional data submitted to AISHE:

Yes

Year of Submission

2020

Date of Submission

21-Jan-2020

17. Does the Institution have Management Information System ?

Yes

If yes, give a brief descripton and a list of modules currently operational (maximum 500 words)

Currently, part of MIS is implemented. Following modules are implemented:

Staff Personal Information: Staff members can view leave records, attendance, salary slips, etc. They can update their personal information like publications, achievements, etc.

Student database: Students data can be updated by office staff. The classwise list can be downloaded by teachers.

Examination Module: Faculty can update student attendance, unit test marks,

etc. Also, faculty can enter term work marks, internal assessment marks, etc. on the portal.

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

Fr. Conceicao Rodrigues College of Engineering (FR.CRCE) faculty members contribute in framing the syllabus as members/coordinators of Board of Studies (BOS) and syllabus revision committees. 1. Executive Committee (EC) approves the Institute Academic Calendar prepared on the basis of the University Academic Calendar, at the beginning of the semester. This calendar includes semester wise schedule for Institute-level Curricular, Co-curricular and extracurricular activities. 2. Departmental Academic Calendar is prepared by adding timeline and schedule for department-level activities and events like Lesson Plan Submission, final year project evaluation, Faculty Development Programs(FDPs), Industrial Visits, PAC meetings, DAB meeting. 3. Program Assessment Committee (PAC) at department level plans and monitors academic activities for effective curriculum delivery. 4. Faculty prepares Lesson Plan consisting of Course Outcomes (COs), CO-PO-PSO Mappings, Targets, Tools used for attainment, Curriculum Gaps, Content beyond Syllabus and detailed Lecture Plan/Lab Plan. PAC reviews the lesson plans. The Plans are discussed in the class and uploaded on the website for reference. 5. Regular classroom teaching is supplemented with Guest Lectures, Seminars, Assignments, Quizzes, Tutorials, Case Studies, hands-on-sessions, Mini projects, Industry visits, Internships, Online resources, NPTEL lectures. Learning Management System (MOODLE) is used by faculty and students. 6. Class teachers and HODs monitor regular academic activities. 7. All faculty members conduct course exit survey and calculate CO attainment for their subjects. Remedial actions are taken as required. 8. Internal Assessment tests are conducted, and mid-term academic progress report with attendance is conveyed to the parents. Advanced and slow learners are identified, and necessary actions are taken wherever applicable. 9. Periodic Final Year Project evaluation is organized by the Project Coordinator for continuous assessment of the project work. 10. Term work assessment is done based on continuous evaluation of student performance in laboratory/tutorials and assignments. 11. End Semester examinations are conducted by the University. 12. Mid-term and End-term feedback is collected from students. Mid-term feedback is taken by the HODs from approximately 20 percent randomly selected students. End-term feedback is collected online based on the parameters like depth and breadth of syllabus covered, how well the subject delivered, effective time utilization of time during the lecture, real-life examples used, etc. 13. Academic audit is conducted every academic year to evaluate curriculum delivery on parameters like course plan, teaching and learning methods, evaluation rubrics, lab experiments, attainment tools, CO Attainment. 14. Departmental Advisory Board (DAB) evaluates the department's performance and recommends steps for curriculum enhancement and infrastructure improvement.

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
NIL	NIL	27/09/2021	0	NIL	NIL

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
BE	Information Technology	01/07/2019
BE	Computer Engineering	01/07/2019
BE	Electronics Engineering	01/07/2019
BE	Production Engineering	01/07/2019
BE	First Year all Branches Engineering	01/07/2019
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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	Production Engineering	01/07/2019
BE	Electronics Engineering	01/07/2019
BE	Computer Engineering	01/07/2019
BE	Information Technology	01/07/2019

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

	Certificate	Diploma Course
Number of Students	411	Nil

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
Grooming for Placements By Industry Experts	24/05/2020	161
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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
BE	Computer Engineering	51
BE	Electronics Engineering	35
BE	Production Engineering	60
BE	Information Technology	41
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	No

Alumni	Yes
Parents	Yes

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

Feedback Obtained

For each program, we collect students, teachers, parents, graduate and alumni exit surveys. We analyze the feedback and try to emphasize more on the following areas: The curriculum gap is identified by the academic and industry experts, and suggestion for inclusion next syllabus revision are convey to the University of Mumbai to enrich students more practical knowledge. The internship has been recommended/ suggested to gain industrial exposure. Many Technical events/conferences/seminars/workshops/guest lectures and industrial visits are organized in college to refine students technical knowledge. Teachers are trained to adopt new technologies which can be implemented to improve teaching-learning. Students are encouraged to take mini projects/B.E projects on live problems. Infrastructural and laboratory changes/upgrades are made on a regular basis. Action Taken on Teachers Feedback At the end of every academic year, each faculty receives online feedback filled by students for the subjects taught during the current year. If faculty feedback is unsatisfactory, then the following actions are taken by the faculty and higher authorities. The teacher submits remedial action on the feedback to the higher authorities. HOD and PAC members discuss the lesson plan to see the depth and breadth of the subject covered. HOD and Dean of Academics observe the lectures and monitor weekly attendance reports. The faculty conducts group discussions, quizzes, brainstorming sessions during lecture hours to hold attention and encourage independent thinking. Real-life projects and assignments are given to students to enhance independent thinking and logical reasoning. HOD approves the grading sheet and collects midterm feedback from students about their learning experience and unbiased assessment of student's performance and term work.

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
BE	Production Engineering	12	552	3
BE	Electronics and Computer Science	12	552	12
BE	Computer Engineering	24	552	23
BE	Mechanical Engineering	12	552	8
ME	Mechanical Engineering	Nil	Nil	Nil

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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	Number of students enrolled	Number of fulltime teachers	Number of fulltime teachers	Number of teachers
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	in the institution (UG)	in the institution (PG)	available in the institution teaching only UG courses	available in the institution teaching only PG courses	teaching both UG and PG courses
2019	1116	11	58	4	Nil

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
62	33	15	17	4	20

[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)

Mentoring in educational institutes involves informal communication, face-to-face, between the teachers (mentors) and the students (mentees). Mentoring not only helps to monitor the academic progress of the students but also ensures their overall wellbeing. Mentor system started in Fr. CRCE from the academic year 2015-16. Each mentor takes care of approximately 20 students from SE to BE. For the students newly admitted in the first year, a faculty preferably teaching the subject in both the semesters is assigned mentorship. Usually, one faculty mentors a group of 20 to 25 students. Hence typically a class of sixty students can have two to three mentors. The syllabus revised in the academic year 2019-20, has introduced one senior student, preferably from third year (Semester-V) from same department/stream as an additional mentor for these students. Teacher Mentors keep track of academic progress attendance of the students and also addresses personal problems, if any, faced by the students in the first year of engineering. While student mentors can prove to be a helpful guide in every walk of college life and also help new entrants to cope up with the professional studies. Mentoring with minimum one session in a month is conducted during semester by the faculty mentors. Teacher mentor maintains all the records and updates the information regularly. Fr. CRCE follows an online mentoring system where the mentors can track the students' academic progress and attendance status. In certain cases, the student can be referred to the Principal, Head of the Department, Dean Academics or Counsellor to seek guidance/intervention. In the higher semesters, a dedicated time slot is allotted in the timetable for mentoring session. Students meet their mentors once a week or more often as per need. During the interaction, the mentors record the observations about the mentees' needs, strengths, weaknesses, grievances and doubts, etc and try to help them to overcome the problems and boost their confidence. Objectives of Mentoring 1. To keep track of the academic progress and attendance status of the student. 2. To understand the students' strengths, weaknesses, capabilities and needs. 3. To help them overcome their fears and shortcomings and boost their morale as well as use their strengths to excel in his/her objectives. 4. To refer specific cases to the Principal, Head of the Department, Dean Academics or Counsellor for special assistance required.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
1116	40	1 : 28

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
55	62	Nil	Nil	17

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	Designation	Name of the award,
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	receiving awards from state level, national level, international level		fellowship, received from Government or recognized bodies
Nil	nil	Nil	nil
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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	3148246	8	17/10/2020	13/11/2020
BE	3148246	7	26/11/2019	21/01/2020
BE	3184245	8	17/10/2020	13/11/2020
BE	3184245	7	26/11/2019	21/01/2020
BE	3184346	8	17/10/2020	17/11/2020
BE	3184346	7	26/11/2019	01/01/2020
BE	3184606	8	17/10/2020	31/10/2020
BE	First year	1	29/11/2019	02/10/2020
ME	3184612	1	17/12/2019	01/03/2020

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2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

The institute being affiliated to Mumbai University adheres to the evaluation method prescribed by the university in the syllabus. However, the institute has brought some reforms in some components of evaluation. A choice based scheme of syllabus was introduced by the university in 2016. As per the scheme, the evaluation system, adopted by the institute, has two components viz. 1. CIE 2. End Semester Exam (ESE) The weightage given (for UG and PG): CIE-20 ESE- 80 Term work- 25 As specified by the Mumbai University, the institute conducts two class tests for UG and PG students. The test marks are averaged and are available on the ERP for the students and for use by the exam cell. The model answers of the test papers are also available in the archive for the reference of the students. According to this scheme, the students are required to make mini projects in specific subjects every semester. The mini projects are evaluated based on predefined rubrics. Some new tools were added for the evaluation of mini projects. At least two assignments are given to the students during the semester and evaluated based on predefined rubrics. In some subjects, tutorials are introduced and evaluated regularly. The term work marks allotted are available to the exam cell on the ERP. The progress of the final year projects of UG is reviewed during the term periodically and evaluated by teams of teachers. The marks allotted are considered while allotting the term work marks.

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

The institute being affiliated to the Mumbai University, designs its college academic calendar semester wise based on the academic calendar of the university, clearly specifying the dates of various academic, co-curricular, and extracurricular activities to take place during the term. This calendar

includes dates proposed by the university for the commencement, conclusion of the present semester, commencement of the next semester and is notified prior to the commencement of the term. College strictly adheres to the specified dates. Accordingly, the dates for the unit tests and other co-curricular and extra-curricular activities are planned and strictly followed. The unit tests (UT) are conducted on the dates reflected in the academic calendar. The dates for uploading the UT question papers and model answers on ERP are strictly followed by the teachers. The evaluation of the test papers is finished in the stipulated time and marks uploaded on the ERP. After every test, the UT marks and the cumulative attendance are conveyed to the parents. The schedule for Assignments and laboratory experiments is included in the lesson plan and practical plan, respectively and conducted as per the schedule. As a part of the internal assessment, the departments conduct final year project demonstration and progress review according to the academic calendar of the department. The oral and practical exams are conducted every semester within the dates stipulated by the university.

2.6 – Student Performance and Learning Outcomes

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

<http://frcrce.ac.in/index.php/academics/naac/naac-19-20/category/91-2-teaching-learning-and-evaluation1920?download=585:2-6-student-performace-and-learning-outcomes>

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
3184606	BE	Production Engineering	57	57	100
3184376	BE	Electronics Engineering	66	66	100
3184245	BE	Computer Engineering	78	78	100
3148246	BE	Information Technology	76	76	100
3184612	ME	Mechanical Engineering	2	2	100
3184376	ME	Electronics Engineering	2	2	100

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2.7 – Student Satisfaction Survey

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

<http://frcrce.ac.in/index.php/academics/naac/naac-19-20/category/91-2-teaching-learning-and-evaluation1920?download=583:student-satisfaction-survey-on-overall-institutional-performace>

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Resource Mobilization for Research

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

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Minor Projects	1	Mumbai University	0.3	0.3
Minor Projects	1	Mumbai University	0.25	0.25
Minor Projects	1	Mumbai University	0.25	0.25
Minor Projects	1	Mumbai University	0.3	0.3
Minor Projects	1	Mumbai University	0.4	0.4
Minor Projects	1	Mumbai University	0.25	0.25
Minor Projects	1	Mumbai University	0.25	0.25
Minor Projects	1	Mumbai University	0.3	0.3

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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
Idea validation, Business Opportunity Identification and Business Model Development	All Departments	05/08/2019
IPR IP Management for Innovation and Start-ups	All Departments	23/01/2020

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
NIL	NIL	NIL	Nil	NIL
No file uploaded.				

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
NIL	NIL	NIL	NIL	NIL	Nil
No file uploaded.					

3.3 – Research Publications and Awards

3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
0	0	0

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

Name of the Department	Number of PhD's Awarded
Production Department	1

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

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Production Engineering	7	0.44
International	Electronics Engineering	2	0.38
International	Computer Engineering	3	0.33
International	Information Technology	16	0.59
International	Humanities and Science	1	0.38

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

Department	Number of Publication
Electronics Computer Science	7
Production Engineering	10
Computer Engineering	11
Information Technology	3
Humanities Science	2

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

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Using Vegetable-oil based Sustainable Metal Working Fluids to promote Green Manufacturing	Dr.Vasim Shaikh	International Journal of Manufacturing, Materials and Mechanical Engineering (IJMMME)	2020	5	Fr. Conceicao Rodrigues College of Engineering	5

Diabetic Retinopathy Screening using Machine Learning for Hierarchical Classification	Dr. D V Bhoir	International Journal of Innovative Technology and Exploring Engineering	2019	2	Fr. Conceicao Rodrigues College of Engineering	2
Evaluating Resource Centric Behavior of Workloads and Performance Analysis in CMPs due to Shared Resources	Dr. Sunil Surve	International Journal of Engineering and Advanced Technology	2019	1	Fr. Conceicao Rodrigues College of Engineering	1
HYBRID PHISHING SITE DETECTION	Prof. Nilesh Patil	International Journal of Advanced Science and Technology	2020	1	Fr. Conceicao Rodrigues College of Engineering	1
Prediction of Vertical Handover using Multivariate Regression	Prof. S. Prabhavathy, Dr. Srija Unnikrishnan	International Journal of Innovative Technology and Exploring Engineering	2019	7	Fr. Conceicao Rodrigues College of Engineering	7
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3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Prediction of Vertical Handover using Multivariate Regression	Dr. Srija Unnikrishnan	International Journal of Innovative Technology and Exploring Engineering	2019	5	7	Fr. Conceicao Rodrigues College of Engineering

		g				
Using Vegetable-oil based Sustainable Metal Working Fluids to promote Green Manufacturing	Dr. Vasim Shaikh	International Journal of Manufacturing, Materials and Mechanical Engineering (IJMMME)	2020	3	2	Fr. Conceicao Rodrigues College of Engineering
Diabetic Retinopathy Screening using Machine Learning for Hierarchical Classification	Dr. D V Bhoir	International Journal of Innovative Technology and Exploring Engineering	2019	2	2	Fr. Conceicao Rodrigues College of Engineering
Evaluating Resource Centric Behavior of Workloads and Performance Analysis in CMPs due to Shared Resources	Dr. Sunil Surve	International Journal of Engineering and Advanced Technology	2019	4	1	Fr. Conceicao Rodrigues College of Engineering
Prediction of Vertical Handover using Multivariate Regression	Prof. S. Prabhavathy	International	2019	5	7	Fr. Conceicao Rodrigues College of Engineering
HYBRID PHISHING SITE DETECTION	Prof. Nilesh Patil	International Journal of Advanced Science and Technology	2020	1	1	Fr. Conceicao Rodrigues College of Engineering
Performance evaluation of various texture	Dr. Ketaki Joshi	International Journal of Computational Vision	2020	1	Nil	Fr. Conceicao Rodrigues College of Engineering

analysis techniques for machine vision-based characterization of machined surfaces		and Robotics				g
Contribution of factors such as machining parameters, MQL nozzle orientation and Mql Nanofluid type on surface finish of turned steel workpieces using DOE approach	,Prof. D S S Sudhakar	Materials Science Forum Vol. 1019	2020	1	Nill	Fr. Conceicao Rodrigues College of Engineering
Convergence and BER approximation of HIC Detector for DS-CDMA System in Rayleigh Fading Multipath Environment	Prof.Monica Khanore	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	2020	1	Nill	Fr. Conceicao Rodrigues College of Engineering
Performance evaluation of various texture analysis techniques for machine vision-based characterization of machined surfaces	Dr. Bhushan Patil	International Journal of Computational Vision and Robotics	2020	1	Nill	Fr. Conceicao Rodrigues College of Engineering

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

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	63	Nil	Nil	Nil

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3.4 – Extension Activities

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

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Making of compost pit	NSS	4	60
Waste Management	NSS	4	58
Chinbai Beach clean up, Chinbai village, Bandra., 21st September 2019	NSS	4	77
Walk For Freedom, St. Stanislaus High School, Bandra(W), 2nd November 2019. Walk For Freedom, St. Stanislaus High School, Bandra(W), 2nd November 2019.	NSS	4	68
Ganpati Visarjan Cleanup at juhu beach, Mumbai	NSS	4	77
Blood Donation 1, FRCRCE, August 28th 2019	NSS	4	85
Kolhapur Flood Relief Donation, 22 August 2019	NSS	4	38
Bottles for change, Bisleri, Andheri [east] 21st August 2019.	NSS	4	45
Tree plantation at Emerald Court Garden Mumbai (Andheri w) 5th JULY 2019	NSS	4	38
Climate change Workshop	NSS	4	50

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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
NSS	Leadership Training cap Certificate	Granted by University of Mumbai to our students Mr. Alden DSouza	1
NSS	Appreciation award for volunteering Mount Mary Fair, Bandra.	Brihan Mumbai Aayuktalaya, Mumbai awarded certificate of Appreciation	1
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3.4.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
NSS	NSS	Making of compost pit	4	60
NSS	NSS	Waste Management	4	58
NSS	NSS	Chinbai Beach clean up, Chinbai village ,Bandra., 21st September 2019	4	77
NSS	NSS	Walk For Freedom, St.Stanislaus High School,Bandra(W), 2nd November 2019. Walk For Freedom, St.Stanislaus High School,Bandra(W), 2nd November 2019.4	4	68
NSS	NSS	Ganpati Visarjan Cleanup at juhu beach, Mumbai	4	77
NSS	NSS	Blood Donation 1, FRCRCE, August 28th 2019	4	85
NSS	NSS	Kolhapur Flood Relief Donation, 22 August 2019	4	38

NSS	NSS	Bottles for change, Bisleri, Andheri [east] 21st august 2019.	4	45
NSS	NSS	Tree plantation at Emerald Court Garden Mumbai (Andheri w) 5th JULY 2019	4	38
NSS	NSS	Climate change Workshop	4	50
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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
IEEE International Conference on Advances in Computing, Communication Control (ICAC3)	105	All India Council for Technical Education (AICTE)	2
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3.5.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Full-Time	Industry Visit	Visions Software Pvt. Ltd. (Chandigarh), Auscan Academy of Information Technology (Chandigarh), Micro Turner Group, Baddi (Himachal Pradesh), Aar Kay Shawl Industries, Bhuntar - Kullu	27/12/2019	04/01/2020	145 students

		(Himachal Pradesh)(Field Trip)			
Part-Time	Internship	Indian School of Design Innovation (Field Trip)	11/03/2019	11/03/2019	5 staff members
Part-Time	Internship	SKS Enterprises	29/11/2019	10/01/2020	Faizan Jetpurwala
Part-Time	Internship	Blue Star	10/06/2019	21/06/2019	Ashish Kumar
Part-Time	Internship	Embedded Techno Solutions	16/12/2019	27/12/2019	Noel James
Part-Time	Internship	BSNL	16/12/2019	28/12/2019	Kar Sumanto
Part-Time	Internship	Pan Gulf Steel Company	18/12/2019	07/01/2020	Varun Babu
Part-Time	Internship	L T, Powai	05/12/2019	04/01/2020	Joel Paul
Part-Time	Internship	Classic Strips Pvt. Ltd	10/07/2019	09/10/2019	Alroy Pereira
Part-Time	Internship	HERBOLAB India Pvt Ltd, Mumbai.	06/06/2019	12/07/2019	Sakshi Dave
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
Hyfunn	02/09/2019	Online platform for education	Nil
Studenting Era	25/07/2019	Education and Training	Nil
United Way	24/07/2019	Volunteering in Mission Blue Project	Nil
Rotract Club	14/10/2019	Social activities	50
View File			

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
342.1	267.53

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Seminar Halls	Existing
Class rooms	Existing
Seminar halls with ICT facilities	Existing
Classrooms with LCD facilities	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Laboratories	Existing
Classrooms with Wi-Fi OR LAN	Nil
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
LIBSuite	Partially	2007 version	2007

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	27313	2473499	360	82621	27673	2556120
e-Books	4065	80240	4065	120000	8130	200240
Journals	49	462635	45	110000	94	572635
e-Journals	155	5698664	305	1005204	460	6703868
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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Nil	Nil	Nil	Nil
No file uploaded.			

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	691	239	23	6	72	6	345	100	0

Added	0	0	0	0	0	0	0	0	0
Total	691	239	23	6	72	6	345	100	0

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

100 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
Smart board with recodring facilty, Interactive Whiteboard - Recording Tools, Snapshot from Running Video capabilities are available	http://www.frcrce.ac.in/index.php/academics/naac/naac-19-20/category/93-4-infrastructure-and-learning-resources?download=512:4-1-2-3-ictcvideo
Open Source tools CamStudio is available in labs for recording videos of faculties.	https://youtu.be/bmtmMqywtc
Lecture Notes	Faculty can upload subject notes on moodle
PPTs	http://gyan.fragnel.edu.in:2222/moodle/course/view.php?id=295
Blogs	http://fragnelcollegelibrary.blogspot.com

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
1569.1	45.11	342.1	267.53

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 institute has maintenance system for all essential available facilities. Maintenance is carried out throughout the year and as and when required. The college has Maintenance Committee that oversees the maintenance of buildings, classrooms and laboratories. This committee ensures that the proposed expansion of infrastructure is in line with the academic growth of the institution. Faculty in-charge is assigned for maintenance of every floor. The maintenance coordinator conducts periodic checks to ensure the efficiency / working condition of the infrastructure. The Institute expands the infrastructure as per AICTE norms. In case maintenance of lab equipment arises, the concerned laboratory-incharge along with the laboratory assistant issues a maintenance request to the purchase committee through the section/Department head (HOD). Based on the request, the equipment maintenance work is assigned to third party equipment experts. These experts carry out the repair/maintenance of the equipment and all such records are maintained in the lab register of the equipment. The non-teaching staff is also trained in maintenance of science and computer equipment. Institute has appointed external agencies for maintenance

of infrastructure, equipment and other facilities such as lifts, fire extinguishers, fire systems, UPS, water purifiers, water coolers, photocopy machines, computer systems. Some of them are maintained through an annual maintenance contract. For maintenance by an external agency, quotations are called from multiple vendors and finalized by the purchase department. A purchase requisition is raised by the department, followed by purchase orders, invoice preparations etc. The Institute has a house keeping supervisor for overlooking the maintenance of cleanliness and minor repairs (sanitation) required on a day to day basis. Wash rooms and rest rooms are well maintained. Dustbins are placed on every floor. The housekeeping is outsourced. The office staff monitors their work and related maintenance issues. Minor maintenance of furniture items and metal fixtures is carried out by the workshop department and the minor electrical maintenance and AC maintenance is looked after by the Electrical Maintenance coordinator and his team. Classrooms, Staffrooms, Seminar halls and Laboratories, etc is cleaned and maintained regularly by Non-teaching staff assigned for each floor. Periodic requirements of repairs and maintenance is submitted by the HODs to the purchase officer, who then calls for the quotations thereafter the centralized purchase procedure is followed. The HODs monitors the workdone by the contractor and ensures smooth functioning of equipment, the final report of completion of work is handed over to the Principal. <http://fragnel.edu.in/index.php/academics/naac/naac-19-20/category/93-4-infrastructure-and-learning-resources?download518:4>

<http://www.frcrce.ac.in/index.php/academics/naac/naac-19-20/category/93-4-infrastructure-and-learning-resources>

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	BLUESTAR,STULZ	15	983000
Financial Support from Other Sources			
a) National	EBC ,VJNT, SBC, OBC, MINORITY, SC ,ST ,TFW	206	12325181
b)International	Nil	Nil	Nil
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
Soft Skill Development	Nil	280	Dr. Joseph Rodrigues,Fr.CRCE, Bandra
Soft-skills Training for vernacular students of First year	Nil	15	Dr. Joseph Rodrigues,Fr.CRCE, Bandra
Life Skill-Yoga-FE-INDUCTION	22/08/2019	140	Ms. Meenakshi, Shaj Yoga mumbai

Life Skill-Yoga DAY	21/06/2019	50	Mrs. Namratam S Kandoi, the founder and director of the HTDC NGO, Mumbai and Mrs. Mamta Agarwal ,Yoga Instructor, Mumbai
Language Lab and Communication Skills	Nil	280	Dr. Joseph Rodrigues, Fr. CRCE, Bandra
Bridge courses- ICT /Computing skills	Nil	212	Courses like NPTEL, COURSERA, Udeme
Remedial coaching	Nil	19	Faculty Members
Personal Counselling	Nil	143	Dr. Joseph Rodrigues, Fr. CRCE, Bandra
Mentoring	Nil	1116	All faculty members
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
2020	Career Counselling	Nil	428	Nil	121
2019	Competitive Examination	118	Nil	27	Nil
View File					

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
Nil	Nil	Nil

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
45	156	114	12	10	7
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	Depratment graduated from	Name of institution joined	Name of programme admitted to
2019	1	B.E	Computer	stevens institute of technolgy	Data Science master's program
2019	1	B.E	Computer	University of Arizona	Management Information system
2019	1	B.E.	Computer	Illinois Tech	masters program in Information Technology and Management
2019	1	B.E.	Computer	Stony Brook university	Computer Science MS
2019	1	B.E.	Computer	University of Texas at Dallas	"Masters of Science in Computer Science "
2020	1	B.E.	Computer	University of Florida	Department of Computer & Information Science & Engineering
2020	1	B.E.	Computer	Rochester Institute of Technology	Computer Science, MS program
2020	1	B.E	Computer	Mays business school, Texas	Master of Science program in Management Information Systems.
2020	1	B.E	Computer	Stevens institute of technology	Data Science master's program

[View File](#)

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
GRE	19
TOFEL	18

Any Other

7

[View File](#)

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

Activity	Level	Number of Participants
Sports and cultural	Intra College	1013
Sports and cultural	Inter Collège	82
Marathon-Sports	National	41

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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
2019	Secured 2nd Position	National	Nil	1	8314	Pranay Bagrecha
2019	Secured 2nd Position	National	Nil	1	8321	Kevin Ruffin
2020	110 meters Hurdle race in 14.26 seconds (1st position)	National	1	Nil	8292	Noronha Alden Anil
2020	110 meters Hurdle race in 14.64 seconds (2nd position) Khelo India	National	1	Nil	8292	Noronha Alden Anil
2020	Secured 1st Position in Annual Debate Competition at XIT ,Mumbai	National	Nil	1	8314	Pranay Bagrecha

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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)

1. Presence of an active Student Council: Student Council: Institute selects members of student council members as per Mumbai University norms. Committee members are selected by Director, Principal, and Dean (SA). The objective of the student council is to maintain a centralized governing body that addresses student concerns and involvement in academic, co-curricular extracurricular activities. Every student on the role of the institute is eligible to become a member of council and required to apply to become member of the student council. Institute has senior council and junior council with different responsibilities. It ensures participation of all students in the annual college cultural Sports and technical festival. Cultural: "Euphoria" is an annual social gathering which showcases talent of students through various cultural activities like dance, singing, fashion show, and modern art. "Paridhan" is an intercollegiate Dance competition organized by the students. Technical: The Council organizes "Crescendo", a technical extravaganza every year. Technical activities such as technical paper presentation, technical quiz, workshops, Robot War, Model Making, technical talks by eminent personalities are organized by the institute every year. Sports: The Council organizes "Athlos", a sports event every year with various sports events. Magazine: 'Fragmag' is our annual magazine published by the Magazine committee to express their talent in the form of articles, poetry etc. The committee members of various chapters'/Project teams are selected on the basis of profile Application submitted and interview Faculty In-charge and council members. 2. Representation of students on the academic committees: Class Representatives: The Class Representative brings forward any opinions, concerns and ideas from their classmates regarding their academic experience. Every class representative shall be chosen from each class to represent the class, during Student Council elections by voting mechanism. Training and placement representative (TPC): TPC acts as bridge between students and TP cell to enhance the overall placement activities. Student Chapters: Student Chapters are established for professional bodies such as ASME, CSI, Debsoc, eCell, ISTE, IEEE, ISTA, Literary Club, Mozilla, SAE, WIE, TEDx. They conduct activities in alignment with respective professional bodies such as Expert lectures, Industrial visits. Project Teams: The institute has formed different project teams like Robocon, Vaayushastra, Codelabs, Mavericks, to participate in different competitions at national and international level. Many of our teams won the awards at different levels. Social Clubs: NSS and Rotaract club organizes different events like Blood donation camp, yoga Day, donation drive, cleanliness drive, Marathon, Green Hands Project, NGO Sessions to sensitize students towards societal issues and community services 3. Representation of students on administrative committees: College Development Committee (CDC): Students' representation on this Committee facilitates overall development of institute and infrastructural growth from students' perspective. Internal Quality Assurance Cell: It ensures the institutional functioning towards quality enhancement. Internal complaint committee: It ensures prevention and prohibition of sexual harassment, Gender sensitization. Alumni Association: Alumni Association is in place to strengthen the relationship amongst alumni. Anti-Ragging committee: This committee ensures zero ragging incidents in the Institute. Women development Committee: WDC organizes different seminars for women in engineering. LINK: <http://frcrce.ac.in/index.php/academics/naac/naac-19-20/category/94-5-student-support-and-progression?download497:5-3-2>

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

No

5.4.2 – No. of enrolled Alumni:

2150

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

635000

5.4.4 – Meetings/activities organized by Alumni Association :

The Institute established the Alumni Association in the Academic year 1993 - 94. The Alumni committee is functional since 1994 with the objectives to promote and foster mutually beneficial interaction between Alumni and the Institute, to encourage the Alumni to take abiding interest in the process and development of Institute, to arrange and support placement activities for the students of Institute, to encourage the students of the Institute and members of the Association for research and development work in various fields, to mentor the students of the Institute for higher education, to guide the students of the Institute on self-employment to become entrepreneurs, to promote the Industry-Institute interaction and enhance students' employability. Citing the above objectives of Alumni Association, our Alumni contributes to the development and betterment of the Institute. Our students and Institute are benefited in various fields such as student placement, training, expert lectures, career guidance sessions and mentoring. Contribution from Alumni: Financial Contribution: Our Alumni contributes significantly to the development of the Institution through financial means. Our Alumnus from batch 1995, Mr. Suresh Balakrishnan has instituted a yearly scholarship of around 5 lakhs for deserving but economically-constrained students. This year, he had sponsored 5 lakhs. The entire Production batch of 1994 who donated around Rs.1.35Lakhs towards facility development in our institute. Non - Financial Contribution: Expert speakers: Alumni are invited for guest lectures in their respective domains, as Keynote speakers for training programs, Career counseling seminars, etc. Curriculum enrichment: Alumni contribute for curriculum enrichment through their structured feedback on the curriculum in-order to keep pace with the recent advancements in industry. They also help us to mitigate the identified gaps through beyond-syllabus activities. TEDx, Euphoria Guest: Alumni are invited to grace as Guests of Honor for our Annual Cultural fest Euphoria and also as speakers for Tedx-CRCE. IQAC: Alumni are active members of Internal Quality Assurance Committee (IQAC) and their valuable inputs are used for quality enhancements. Placements Internship: There is an active contribution of our Alumni towards placements as well as student internships. DAB Governing Council: Alumni are also invited on the Department Advisory Board (DAB) of the various programs and also as a member of Governing Council of the Institute. They contribute by regularly attending meetings and give their inputs. Alumni committee has a networking portal Alma Connect. Alma Connect is a social network based on private alumni networks focused on helping an alum / student get trusted help from his/her alumni network. Link: <http://frcrce.ac.in/index.php/academics/naac/naac-19-20/category/94-5-student-support-and-progression?download496:5-4>

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 is managed by highly experienced members in the governing council with an acute foresight into the matters concerned with development of the institute. The initiatives truly reflect the determined efforts to ensure vision and mission are accomplished. The initiatives, for example include the addition of state-of-the-art equipment in all the laboratories, allowing formation of technical teams and encouraging them to participate in various

national and international competitions thus providing wide range of exposure to advances in technology worldwide. In addition, management has set up an executive council to take important decisions as regards the governance of the institution and in turn will be approved by the governing council and management. The decisions after proper approval will be made available to all the staff for proper execution. This will enable each staff to participate in decision making process and ensure to fulfil the vision and mission of the institute. Participative management: - A well delegated, democratic system has been developed and followed, to facilitate decision making which ensures transparency through participation and involvement of all stakeholders. Case Study 1: Delegation of financial powers (As regards purchase of an equipment) :- Management / Director will initiate the process of annual budgeting by calling a meeting of Principal, HODs, Unit Heads and Financial Controller. HODs will discuss the departmental preferences with departmental staff members and invite proposal for the next financial year. After scrutinize the received proposal(s), a consolidated statement of department proposal is submitted to the Principal by HODs and other units. Principal with the Accounts in-charge will make the institute level consolidated budget Proposal, based on the proposals received from the departments, making provisions for institute level purchases, student activities etc. and place the same in front of the College Development Committee. Funds for capital procurement are allocated as per requirement and priority. After incorporating the amendments, based on the discussions in the Executive Committee, Principal will submit the final budget proposal from the institute to the Trustees. The institute budget is merged into the budget of the Fr. Agnel Technical complex, Bandra and presented to the LCM and Governing Council of the Society for approval. Principal can utilize the contingency fund for urgent/extraordinary/special requirements. Head of Departments are empowered to procure items as per the approved budget by following the set procedures.

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
Industry Interaction / Collaboration	<p>With Managements initiative in motivating faculty and staff to get involved in Internal Resource Generation (IRG), a scheme was prepared. Which enables staff to share some profit earned proportionately. So, Few staff members got motivated to start Conducting short-term training certification courses for industrial workers. This training helps the candidate upgrade his/her current working or get employed in an industry. The lists enclosed show the staff involved in training activities for Indian Oil Corporation Ltd. and the number of trained workers. Similarly, CNC operator courses was started wherein a student was trained in all aspects of CNC machines. After successful completion will receive a certificate which helps him gets a</p>

placement in industries. Such training programs have received an overwhelming response as well as appreciation from the participating enterprises. Secondly, the certification courses have become more popular due to appropriate training provided to the admitted students. These courses have seen a steep rise in enrollments as well as have become highly appreciated courses. Due to proper planning and stricter implementation of IRG strategy, many public sector and private sector firms are approaching the institute for conducting competitive examinations at our premises.

Examination and Evaluation

1)Online term work and internal assessment marks entry. 2)Faculty can download list of failed students in their subject. 3)Online assistance to get the information on Dropout students. 4)Online generation of result statistics for both subject wise and semester wise. 5)Online uploading of term work grading sheet as well as internal assessment grading sheet. 6)Online uploading of question papers required for unit tests. 7)Online selection of invigilation slots for unit tests and university examinations. 8)All circulars and notices sent by mail. 9)E-appointment letters to examiners appointed to conduct oral/practical examinations.

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

E-governance area	Details
Administration	<p>1)Biometric attendance introduced for all the staff thus eliminating physical signature. 2)Biometric based salary preparation. 3)Online leave maintenance of each staff and provision for login based viewing. 4)Personal information viewing with login basis made available in the web site. 5)PAYSLIP</p>
Student Admission and Support	<p>1)For institute level admissions, advertisement for the said vacancies will be displayed on the website . 2)Provision is made to download the application form and submit 3)Based on the CET and marks scored in 12th examination a merit list will be prepared and uploaded on the website. 4)The schedule for admission of the students shortlisted above will also be displayed in the website. And admission</p>

	<p>is done accordingly. 5)Online support for students include facility to see the status of the result. 6)Includes notices regarding unit tests, other office related matters. 7)All the eligible students will take into the streams of our institute as per allotment done online by the government agencies. 8)Institute level admissions are also a part of e-Governance. Students will apply online for the said vacancies and merit list accordingly will be displayed on the web site. 9)Online support system for the students comprises of : e-copies of books and journal papers etc.</p>
Finance and Accounts	<p>1)Purchase orders are issued to the vendor by mail. 2) Many bills pertaining to examination, purchase of equipment/ instruments and/or software are cleared through NEFT or RTGS. 3)All the details of finance and accounts are maintained as a soft copies. 4)All the audited reports are maintained on the web site. 5)Use of Tally software by accounts department.</p>
Examination	<p>1)Online term work and internal assessment marks entry. 2)Faculty can download list of failed students in their subject. 3)Online assistance to get the information on Dropout students. 4)Online generation of result statistics for both subject wise and semester wise. 5)Online uploading of term work grading sheet as well as internal assessment grading sheet. 6)Online uploading of question papers required for unit tests. 7)Online selection of invigilation slots for unit tests and university examinations. 8)All circulars and notices sent by mail. 9)E-appointment letters to examiners appointed to conduct oral/practical examinations.</p>

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
2020	Dr.Ketaki Joshi	Fees OF NATIONAL WORKSHOP ON NIRF INDIA	Nil	5000

		organised by Government of Telgana		
2020	Mrs.Swati Ringe	FEES OF ONE WEEK ISTE/STTP at SAKEC	Nill	2800
2019	Mrs.Garima Tripathi	FEES OF ONE WEEK ISTE/STTP OF KJ Somaiya	Nill	3500
2019	Mr.Hitendra Vaishnav	Workshop organised by MHRD, New Delhi	Nill	5690
2019	Dr.Sujata Deskmukh	Visit to Dapoli Agriculture University for project presentation	Nill	3356
2019	Dr.Sunil Surve	Workshop on NAAC Documentation	Nill	1000
2019	Mrs. Prachi Patil	FEES OF ONE WEEK ISTE/STTP OF KJ Somaiya	Nill	3500
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6.3.2 – Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	Idea validation, Business Opportunity Identification and Business Model Development	Nill	05/08/2019	05/08/2019	50	Nill
2019	Python Programming	Nill	30/08/2019	31/08/2019	40	Nill
2020	IPR IP Management for Innovation and Start-ups	Nill	23/01/2020	23/01/2020	156	Nill
2020	Data Science	Nill	26/05/2020	30/05/2020	794	Nill

2020	Disruptive Technologies Of Industry 4.0	Nil	30/05/2020	03/06/2020	630	Nil
2020	Advances in Internet of things	Nil	29/05/2020	02/06/2020	809	Nil
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
Introduction to Data Science	1	07/04/2020	07/04/2020	1
Engineering Education the Industry: A Post COVID-19 Perspective	1	01/06/2020	05/06/2020	5
Swift (ios) Programming Language	1	12/05/2020	16/05/2020	5
Data Science	5	26/05/2020	30/05/2020	5
Moodle: Learning Management System (LMS)	1	13/05/2020	17/05/2020	5
Data Analytics Present Future	1	11/05/2020	15/05/2020	5
R Programming	1	27/04/2020	02/05/2020	6
LaTeX	1	29/04/2020	04/05/2020	6
View File				

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

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
62	62	47	47

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Fr. Agnel co-operative Society ,Accidental Insurance	Fr. Agnel co-operative Society ,Accidental Insurance	Nil

6.4 – Financial Management and Resource Mobilization

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

Internal Audit: In any organisation, financial transactions need to be scrutinised by a team of internal auditors. Financial transactions may be broadly classified as follows: Purchase of material Examination remunerations Honorarium to invited guests and/or technical experts or otherwise. Miscellaneous remunerations. As per the guidelines set by management internal audit is carried. Guidelines issued by the management may be as follows: When a purchase is to be done, an indent is prepared and submitted to purchase department with approvals from principal as well as management. Purchase department in turn gets three quotations from different vendors and finalises one for purchase. Accordingly purchase order is prepared and mailed to the vendor finalised. Once the material is received, it is delivered to the respective section from where indent was done after store entry formalities. Now the bill is sent for approval through the internal auditor. Internal auditors team in turn scrutinise all these formalities being executed and then approves it for final approval by management. Thus the bill is processed. Examination remunerations like remuneration to internal and external examiners during practical and oral examinations, remuneration to faculty for assessment as well as moderation of theory papers, remuneration to invigilators, senior supervisors, chief conductors is paid as per the university guidelines. A consolidated bill is prepared showing all the details of remuneration and sent for auditing. Internal auditors in turn audit any discrepancies and approve it which in turn is approved by management. While paying honorarium to invited guests or technical experts, a pre-approved budget is considered. A consolidated list of such experts and their honorarium is prepared and is audited by auditors as usual. All miscellaneous expenses are also dealt in a manner explained above. **External Audit:** An external auditor is appointed by the college to audit the financial statements of the college. The financial records of the College are audited at the end of each financial year and are certified. These are also available in the college web -site.

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
Individuals	127764	purpose Mentioned in the sheet
View File		

6.4.3 – Total corpus fund generated

127764

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	Experts from other colleges	Yes	Program Assessment Committee
Administrative	No	Null	No	Null

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

Parent-Teacher Association is not available in our institute.

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

NIL

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

1) IQAC Event Committee The committee constitutes five members who are Programme Coordinators of the various departments. The committee will organize the events that will be useful to faculty/staff/students in improving the quality of education. The committee plans to organize the following events: • Workshops - two workshops in an academic year • Seminars - four to five seminars in an academic year • Mini project competition - end of each semester

2) Student Quality Circle (SQC): Objective: To improve and enrich quality of education and enhance student life with varied and invigorating experiences SQC was formed comprising of Faculty Incharge and 5 student representatives. The objective of SQC was to improve and enrich quality of education enhance student life with varied invigorating experiences. Meeting was conducted with the student Representatives and following points were discussed. 1.To increase self confidence 2.To develop positive attitude. 3.Time management skills 4.Scientific Problem solving skills 5.Improve the communication and Presentation skills 6.Improve Creativity and lateral Thinking It was decided to take SWOT analysis from students .This SWOT analysis would help us to identify the students strength's and Weakness .This information gathered from every student would assist us to guide the Students accordingly. Example motivate the Weak students, and Strong students by giving them Moral support through proper guidance and counselling.

6.5.5 – Internal Quality Assurance System Details

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

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	Hackathon	31/08/2019	31/08/2019	31/08/2019	100
2019	Software Design Workshop	23/09/2019	23/09/2019	23/09/2019	125
2019	Design Thinking/Ideation	23/09/2019	23/09/2019	23/09/2019	100
2019	Design Thinking	03/10/2019	03/10/2019	03/10/2019	72
2019	Advanced Deep Learning Workshop	20/12/2019	20/12/2019	24/12/2019	61
2020	Idea Competition	22/01/2020	22/01/2020	22/01/2020	69
2020	Internship	29/02/2020	29/02/2020	29/02/2020	Nil

	Expo 20205				
2020	Women in Entrepreneurship	12/04/2020	12/04/2020	12/04/2020	105
2020	IIC-National Innovation contest - Prototype Submission	06/06/2020	06/06/2020	27/06/2020	10
2019	Business Model	05/08/2019	05/08/2019	05/08/2019	65
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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
International Women's Day Celebration	13/03/2019	13/03/2019	45	25
Self Defence Workshop	06/03/2019	06/03/2019	10	10

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
<p>Fr. Conceicao Rodrigues College of Engineering has taken a Conscious decision to go ahead with this go green project to begin with for 40 KWp roof top Solar Power. ? Solar electricity is being clean (pollution free), silent, limitless and free. ? Generate electricity using photovoltaic solar cells. ? Approved by Maharashtra Energy Development Agency (MEDA) (Govt. of Maharashtra Institution) ? On-line monitoring procedure for the actual energy generation and the pattern</p> <p>1) Alternate Energy Initiatives such as Solar Energy. 2) Total Annual power requirement. 2,35,474 KWH. 3) Renewable Energy Source. Solar PV Plant. 4) Annual power requirement met by the renewable energy sources (in KWH) -27,458. 5) Percentage of annual power requirement of the Institution met by the renewable energy sources. 11.60. Use of LED bulbs 1) Annual lighting power requirement (in KWH) 96,252. 2) Annual lighting power requirement met through LED bulbs (in KWH) 9852. 3) Percentage of annual lighting power requirements met through LED bulbs 10.235. Use of Tube lights 4) Annual lighting power requirement (in KWH) 96,252. 5) Annual lighting power requirement met through Tubelights (in KWH) 86,400. 6) Percentage of annual lighting power requirements met through LED bulbs 89.76.</p>

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Ramp/Rails	Yes	Nil
Scribes for examination	Yes	1

Provision for lift	Yes	Nil
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7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2020	1	Nil	01/02/2020	1	ANNUAL SPORTS DAY	Non Availability of ground	200
2020	1	Nil	17/02/2020	3	ANNUAL DAY	Non Availability of Auditorium	200
2019	Nil	1	08/07/2019	1	Mission Blue Seminar	Awareness about ocean and marine life	100
2019	Nil	1	22/06/2019	1	Climate Change Seminar	Awareness about Climate change	80
2019	Nil	1	21/08/2019	1	Bottles for change seminar	Awareness about the importance of recycling plastic	70
2019	Nil	1	22/08/2019	1	Kolhapur Flood Relief Donation	The college collected and donated essentials	120
2019	Nil	1	19/09/2019	1	GANPATI VISARJAN CLEANUP	Awareness cleanliness and preserving the environment	60
2019	Nil	1	21/09/2019	1	Beach Cleanup	Awareness of beach cleanup	40
2019	Nil	1	28/11/2019	1	HAPPY	To help	35

			019		HOURS STALL	the physi- cally cha- llenged people by selling their product	
2019	Nil	1	08/09/2 019	8	BANDRA FAIR VOLU NTEERING	Partici- pated in the Bandra fair volu nteering cum crowd managemen t for the entire week.	60
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7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
Code of Conduct Service Rules	01/10/2019	1. The Code of Conduct is displayed on the website 2. There is a committee to monitor adherence to the Code of Conduct 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Fr. Conceicao Rodrigues memorial debate	27/09/2019	28/09/2019	32
Blood donation drive	28/08/2019	28/08/2019	200
Blood donation drive	28/01/2020	28/01/2020	200
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7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

1. Restricted entry of automobiles 2. Use of Bicycles/ Battery powered vehicles 3. Pedestrian Friendly pathways 4. Ban on use of Plastic 5. landscaping with trees and plants
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7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

Best Practices 1: Title: Project based learning Objectives: 1. To improve the ability to apply theory to practice: By executing the projects, students will be able to see the applicability of the learned theories which results into enhanced understanding of the theory concepts. 2. To improve the practical skills of the student: Students will be able to get the training on using the latest tools and methodologies to develop applications. 3. To impart skills to identify research problems: While doing the project, students are forced to read the latest research papers. so there is a high probability that the students will be able to identify new research problems. The Context: In engineering education, the theoretical concepts are being imparted through class room lectures and the laboratory skills in the dedicated laboratories. Unfortunately, the enough practical knowledge is not gained due to limited time available to impart practical skills. The issue of imparting practical education becomes unmanageable due to diversity of the students. As a result, the students are not getting expected practical and system development skills. The industry also feels that that the level of practical skills exposed to the students is not up to the desired level. Human resources with sufficient system development and practical skills are imperative for accelerating India's growth potential. So it is very necessary to impart skill based education to current and next generation students by developing institutes to impart skills. At FrCRCE, we are striving to impart skills through project-based training. The Practice : The faculty members identify suitable research projects carrying out cutting edge research. The research environment with PhD program will enable project based learning. Evidence of success (Impact): The project-based learning enables students to participate in several technical events/competitions such as Hackthon, Formula Racing Car, Mavricks, Vaayushatra, E-yantra etc. Problems encountered and resources required (Issues): If not implemented seriously, it will create a negative impact: The project-based learning should be taken seriously by faculty and students. The institute should have a research environment. Our college has set high quality teaching as the main goal for the institute. Based on the feedback from students and faculty, project-based learning has implemented smoothly. The project-based learning increases academic load on the faculty.

Best Practices 2: Title: Empowering Employability skills. Objective: To enhance and empower quantitative and qualitative aptitude of the students for effective employability by providing proper training which is required for the placements so as to make them sound not only technically but also a versatile personality by understanding the needs of industries. Context: A professional course like engineering strives to get maximum number of its students placed through campus interviews. The increasing competition makes it imperative that apart from regular degree certain skills are required by engineers. Industries while advertising for various posts even mention essential skills required along with the essential qualification. Various companies involved in the Placement drives in the institute had given the feedback that despite, the student being technically sound, he should be properly trained for the skills which are required for the placements recognizing the need, the student undergo internship with different industries. Regular industry interaction meet which involved a thorough discussion and interaction with HR's of various company have helped us to understand the need of having student exposure to the recent technologies. In this context the institute has signed several MOU with different industries. The practice: As part of institute initiative we conduct various programmes to promote the employability skills of our students. We try make their technical skills are updated and communication and soft skills are in place. In this regard we conduct Career Guidance Seminars - a Seminar on Improving Employability Skills, and a training on Aptitude and Soft Skills Development - a Seminar on "How to prepare for an Interview", a Training programme on "Aptitude and Soft Skills Training". In order to provide information on higher education development, we also conduct short-term

programmes on Education Abroad. It has been our constant endeavour to make sure our students are updated and possess all the necessary skills that make them technologist. Fr. CRCE facilitates the process of placement of students passing out from the Institute besides collaborating with leading organizations and institutes in promoting internship and training program of students. The Training Placement Office provides the infra-structural facilities to conduct group discussions, tests and interviews besides catering to other logistics. The Office interacts with many industries in the country, of which nearly 30 companies visit the campus for holding campus. Having the vision of the institute that our students are a class apart and we constantly work hard to motivate our students and to make sure they are upto the requisite industry standards. Evidence of success (Impact): As a result of the highly focused and continuous efforts of the TPO cell, every year almost all eligible students are placed. Many students also fetch multiple placements offers. Problems encountered and resources required (Issues): One of the most serious challenges that students encounter is a lack of interest in their studies. The student anticipates a big salary, but they rarely put out the effort to achieve it instead, they focus on their dreams, ignoring their education and refusing to work hard for it. Students who do not assess their own skills have a significant tendency to over-expect themselves.

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

<http://fragnel.edu.in/index.php/students/placements/campus-placement-overview>

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

Our goal is to develop lifelong learners who have outstanding transferrable skills and appropriate graduate qualities in addition to higher level academic talents. Problem-based learning, experiential learning, collaborative learning, group discussions, and public speaking have all been found to be useful in moulding a fledgling engineer into a versatile individual. These activities are beneficial not only to academic learning, but also to students moral and civic participation. To help and minimize the impact of the coronavirus outbreak on students, the Coursera community had launched a global effort to assist universities and colleges to deliver courseware online. As part of this programme Coursera and EDx E-Learning platforms had offered free subscriptions for Faculty and students to enrol for the courses offered under their curriculum. Fr.CRCE entered into a partnership agreement with Coursera and EDx for Enhanced Learning to make our students more industry ready and skills relevant. Our college had applied and received 800 subscriptions for the Coursera for campus programme and 500 subscriptions as part of EDx programme, which benefited students and faculty in upgrading their knowledge with the latest curriculum in their respective areas. To encourage student participation in the certification programmes they were given considerations while teamwork evaluations.

Provide the weblink of the institution

<http://fragnel.edu.in/index.php/students/forums>

8.Future Plans of Actions for Next Academic Year

Future Plans: Plans to improve placement: • Some students do not fit in the placement eligibility criteria set by select employers. It is necessary to improve such students' academic performance by closely monitoring their academic performance, guiding and encouraging them so that their performance level is raised. • Students from Electronics and Production Engineering prefer placement

in their core domain. As of today, only few core domain companies visit for campus placement. We plan to identify and invite potential core companies in manufacturing and electronics domains.

- Encourage students to participate in technical competitions and project contests.
- Student council and professional institute student chapters will focus on organizing programs that facilitate all-round development of students.
- Provide training in soft skills and niche technical areas as per industry requirements.

Plans to improve entrepreneurship: The number of startups /entrepreneurial ventures need to be pushed up. Following steps will be taken to create an entrepreneurship culture in campus:

- o Identifying probable entrepreneurs from amongst the students, preferably from first and second years, encouraging and training them to take up entrepreneurship and providing facilities to develop marketable product.
- o Organizing workshops for promoting entrepreneurship
- o Organizing idea competitions
- o Developing incubation center in campus

Plans to improve national rankings such as NIRF:

- Need to improve public perception through social media and interactions with the outside world.
- Need to improve the numbers of quality research publications:

Policy will be formalized regarding research publications - for annual appraisals and promotion.

- o Encourage faculty and students to publish their research work in reputed Journals / present the same at distinguished National/International conferences.
- o Educate faculty and students to update their research profiles on citation databases like Scopus, Google Scholar etc.