



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

CMR INSTITUTE OF TECHNOLOGY

**CMR INSTITUTE OF TECHNOLOGY, 132, IT PARK ROAD, KUNDALAHALLI
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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

CMR Jnanadhara Trust

The CMR Jnanadhara Trust was established in the year 1990 as a tribute to the late Sri Chikka Muniyappa Reddy, a visionary educationist, and philanthropist who believed that every individual deserves a quality education. He dreamt of bringing literacy to the masses. His vision led to the founding of the CMR Education Institutions that are driven by a mission to provide outstanding, values-based, and holistic education. Today the trust runs 21 Educational Institutions which are known for their excellence.

CMR Institute of Technology (CMRIT)

Established in 2000, the CMR Institute of Technology is situated in Whitefield, Bangalore. CMRIT campus is centrally located, well connected, and easily accessible from other parts of Bangalore.

CMRIT is a premier institution in Karnataka with permanent affiliation to the prestigious Visvesvaraya Technological University (VTU), Belagavi, and approved by AICTE. In 2017, CMRIT joined the elite group of institutions in the country by securing a NAAC A+ grade. Over the last 20+ years, the institute made big strides toward the goal of providing high-quality technical education.

CMRIT currently has over 4500 students in 8 Under-Graduate programs, 3 Post-Graduate Programs and 10 Ph.D. Programs. To effectively deliver these programs, CMRIT has set up advanced laboratories, a library rich in academic resources, and campus-wide Wi-Fi facilities.

Vision

To be a nationally acclaimed and globally recognized institute of engineering, technology, and management, producing competent professionals with appropriate attributes to serve the cause of the nation and society at large.

Mission

CMRIT seeks to realize its Vision with a Mission to:

- ? Create the necessary infrastructure appropriate to the needs of the programs and activities of the institution.
- ? Attract and retain well-qualified faculty and supporting staff.
- ? Create and facilitate an ambiance for interdisciplinary engagement, leading to a healthy competition among students and staff, in pursuit of excellence through lifelong learning.
- ? Develop and operate mutually-beneficial programs, partnering with industries, institutes, and individuals of national and international repute.
- ? Create mechanisms to understand societal needs and provide solutions for the betterment of society.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Dynamic and visionary management
- Conveniently accessible location in the middle of IT Hub in Bangalore.
- Highly qualified and experienced faculty members with rich industry and academic experience.
- A continuous learning philosophy for teachers where they enhance their knowledge by taking up MOOCs and hone their practical skills by participating in implementation projects. CMRIT is registered as SWAYAM/NPTEL local chapter.
- Strong Encouragement to faculty members to pursue Research, Innovation, Entrepreneurship, Consulting, and Startups with requisite flexibility, guidance, and support.
- High publication output with quality publications by faculty members and research scholars that are part of CMRIT Research Centers.
- High output in terms of Invention Disclosures enabled by a well-conceived IP Policy and a structured program to promote Faculty driven Startups.
- High-quality placements that include high packages as well as International Placements with Japan.
- Well-designed student mentoring system with concern for slow learners and encouragement for high performers and tailored programs for SC/ST students.
- Opportunities for students to be part of the Student Council entrusted with the organization of Co-curricular and Extracurricular activities
- A culture of active and continuous collaboration with industry. Over the last 3 years, 20 MoUs have been signed, and a variety of activities are underway.
- Seventeen Centers of Excellence (CoEs) in different technologies with a particular focus on emerging technologies and applying them to solve industrial and societal problems.
- A unique 'Maker-space' facility with a recognized Fab lab which is the educational outreach component of MIT's Center for Bits and Atoms (CBA).
- Well-defined and deliberated teaching-learning process which stood the test of time during the COVID-19 Pandemic.
- Good performance in national level accreditations and ranking. Accredited "A+" by NAAC. Rated in Excellent band in ARIIA ranking. All eligible programs are NBA Accredited. CMRIT Recognized as a Mentor Institution by the Ministry of Education's Innovation Cell, AICTE.
- Pioneer in Innovation and Entrepreneurship Programs of Karnataka State as well as Government of India by setting up KSCST IPR Cell, MSME Incubation Center, Entrepreneurial Development Center (EDC), and Institutional Innovation Council (IIC). CMRIT was called upon to mentor other institutions in innovation
- Recognition by reputed institutions such as ISRO. CMRIT is the ISRO nodal center in remote sensing, where remote sensing courses are delivered to the students.

Institutional Weakness

- Dependence on VTU for planning the academic calendar.
- Limited scope for curriculum revision, as CMRIT is an affiliated institution

Institutional Opportunity

- Participating in significant research proposals and creating an impact for Karnataka State and India
- Enhancing collaboration with local industry in particular startups and Small and Medium Enterprises.
- Incubate faculty members and students to emerge as entrepreneurs.
- Enhancing international placements.
- CMRIT alumni can be involved closely to contribute to the institution's journey towards its vision.
- Attracting students from abroad.
- Formal Networking and collaboration with premier, global and national institutions.
- Larger Consulting Projects with industries need to gain traction.

Institutional Challenge

- Limitation in increasing the fees due to social obligations/policy constraints. Being a self-financed institution, the student fees remain the primary source of revenue.
- Creating a culture of a quest for knowledge among teachers and students
- Motivating students to put in their best effort to realize their potential and make good use of all that CMRIT has to offer.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Being an affiliated institution, CMRIT follows the contemporary choice-based credit system (CBCS) curriculum designed by VTU Belagavi and the faculty members actively participate with the university for implementation and execution of academic activity through BOS, BOE, paper setting, evaluation, etc.

The syllabus in addition to technical courses, has courses relevant to Gender sensitivity, Professional ethics, Human Values, and Community Outreach programs. An average of 22% of courses are available in the syllabus for inculcating experiential learning through project work, mini-projects, fieldwork, and internship resulting in quality education.

The institution has adopted an innovative teaching-learning process with student-centric learning methods (mini-projects, entrepreneur projects, and technical paper presentations), and any curricular gaps are bridged by TYL (Tie Your LACES) training, wherein LACES covers Language, Aptitude, Core Technical, Experiential and Soft Skills. In addition, there are certification courses, add-on courses, internships, and projects with industry support. Many of these activities happen in the CoEs. Overall, the students are provided variety of opportunities for enhancing employability and entrepreneurial skills, resulting in effective attainment of PSO's and PO's.

Regular feedback on the syllabus is taken from the concerned stakeholders & outcomes of this process assessment serve as inputs for continuous improvement in the curriculum. The IQAC performs academic audits twice a semester to ensure the effective delivery of the curriculum. The IQAC conducts periodic reviews about the effective implementation of the course delivery to the students through various process reviewers and knowledge reviewers and ensures all the possible actions by all the departments.

Teaching-learning and Evaluation

The CMRIT Teaching-Learning Process named Touch Your TOES (TYT) aims at three significant objectives: (i) to achieve learning outcomes for students (ii) to make learning an enriching and enjoyable experience and (iii) to develop higher-order thinking ability of students.

In addition to the chalk and talk method, the faculty members are using the ICT-enabled learning tools such as a tablet, whiteboard, Video, Audio system, and online sources, to provide a high-quality learning experience. Best teaching practices such as Blended Learning, Flip classrooms, Virtual Labs, and MOOCs are judiciously used. To facilitate a learner-centric environment, pedagogies that focus on experiential learning, problem-solving and collaborative projects are made use. Course content along with all associated artifacts are made available to students at the beginning of the semester itself.

The institution offers an Intensive Coaching Program (ICP), remedial classes, to support slow learners. Tutorial Classes are used to reinforce the learning that happens by attending lectures. The advanced learners are motivated to realize their potential by participating in inter-collegiate competitions, paper publications, start-up projects, professional events, certificate courses, and internships that explore emerging areas. A group of around twenty students is assigned a mentor from among the faculty members to assess, guide, and nurture them in their academic and professional pursuits.

The rules and regulations for the evaluation process are laid down by VTU, which are implemented at CMRIT with complete transparency by Examination Committee at the college level. The question papers for internal assessment are set to test the understanding, and application skills through thought-provoking questions mapped to Blooms Taxonomy levels. A detailed scheme of Evaluation enables students to self-evaluate and get a better grasp of subjects. Teachers discuss the answers in detail during class hours. Additional classes are taken for low performers. Quizzes, Seminars, Assignments, and Projects are also part of Continuous Internal Evaluation. Some of our student assignments follow a unique approach where questions of varying difficulty levels are offered to students with different learning abilities in a class. We have a homegrown Exam Management Tool (CSE) to manage the conduction of online examinations at a large scale.

Research, Innovations and Extension

CMRIT provides exceptional flexibility to encourage faculty members to engage in research, innovation, consulting, and incubating startups based on home-grown ideas. Herein they can choose to even engage in full-time research. Coupled with flexibility CMRIT has a performance-oriented culture where annual targets are set and tracked for research output, IPR related activity, and activities in support of revenue generation through consulting, funded projects and startup initiation. Further, a systematic review process gives the faculty members feedback to refine their artifacts before submission. We have already seen relatively new researchers being able to get the best paper awards at conferences. The faculty members are trained to file patent applications without legal assistance as well as can file them on their name using “Inventor Privilege” a best practice of CMRIT peer institutions can emulate. During the current year, CMRIT researchers have submitted proposals in state-of-the-art areas to SERB. Further with a couple of industry partners’ research collaboration as well as co-creation of innovative products and solutions is underway. A culture of engaging faculty members in hands-on projects with all earnestness is very unique to CMRIT.

All our endeavors do not mean much unless they create social impact. To this end CMRIT has adopted villages, actively participated in programs such as Unnat Bharat Abhiyan, and collaborated with NGOs such as Enable India. Some of the problems CMRIT faculty members have worked on related to sustainability themes such as saving lakes and imaginative use of solar energy through Solar Trees.

Over 500 research papers (Scopus-indexed) out of which 10% are in Q1 and Q2 Journals. Over 300 Patents and Design Registrations were filed. Over 7 crores of grants were received from DST, VGST, BIRAC, AICTE SPDP, GCK, DBT, UBA, and private organizations.

Infrastructure and Learning Resources

CMRIT has a sprawling well maintained green campus and is situated at the center of the Bengaluru IT corridor. The buildings situated on the CMRIT campus are known for their magnificent architecture and elegance. Well-furnished laboratories, research labs, student hostels, sports stadia, students' hang-outs, and cafeterias are an inspiration for both the students and faculty. Central Library & Information Centre located in the Center of the Campus, is a hub of knowledge, with a vast collection of books, journals, and periodicals. The Institute library has subscriptions to several international reputed journals including IEEE in all disciplines of Management, Science, Engineering, and Technology. The library has several E-Resources and facilities such as E-Books, Online Portal called D-Space, hosting Question papers & solutions, and other learning resources. CMRIT is a member of the VTU Consortium of libraries and under this scheme access to knowledge, and resources are without boundaries. The use of these resources is evidenced in terms of a large number of publications in refereed and peer-reviewed international journals.

The institution is Wi-Fi enabled with a bandwidth of 1000 Mbps facilitating the faculty and students to use the internet anywhere on the campus. Faculty and seminar halls are enabled with LAN connections. Classrooms are equipped with LCD projectors and digital aids for affecting the teaching-learning process.

The institution has well-equipped physical education facilities such as a mechanized gym, and indoor games facilities including carom, chess, badminton, etc. Spacious auditorium and ICT-enabled seminar halls are used for organizing cultural, technical, and nontechnical events.

Student Support and Progression

CMRIT provides an excellent learning ambiance at the campus through several initiatives to support students for their holistic development and progression. CMRIT provides all possible support to the students to avail of financial assistance through government scholarships, non-government free ships, and CMRIT Scholarships. The Institution has an organized mentoring and counseling system on campus. Faculty mentors and counselors take care of the academic and personal issues of the students. Many medals and awards were received by the students from various activities/cultural programs and sports. Many events were conducted to develop Soft skills, Language and Communication skills, Life skills like Yoga, physical fitness, health, and hygiene. Students are actively engaged in technical/non-technical clubs, Innovation clubs, IPR cells, and professional body activities.

Students are also encouraged to be a part of various statutory committees; such as grievance redressal committee, anti-ragging review committee, anti-Sexual Harassment Committee, etc. The institution also has an

active Student Council that addresses the grievances of the students, considers their suggestions, and plans for further improvement.

The placement and Training cell of the college provides meticulous training to enhance the employability skills of the students. The Institution also conducts coaching classes for GATE and foreign languages for those who wish to do their higher studies through the External Exams & Competitions Cell (EE&C). The Institution has an active Alumni Association that contributes a significant role in academic support and progression. One of our Alumni is featured in Forbes Asia 30 under 30 and a few others are in prestigious positions as directors, CEOs, NVIDIA, and Marie Curie scholars.

Governance, Leadership and Management

CMRIT believes in a transparent governance philosophy where stakeholders are called upon to actively participate to realize the Vision, Mission and Goals set out. To achieve the institutional goals, CMRIT strives to mobilize additional financial resources over and beyond fee-based revenue. The institute has a well-established system to audit the financial transactions by both internal auditors and auditors from external agencies.

The Institute administration has eagerly adapted ICT-based tools where prudent. Many of the administrative functions are computerized. The employees are sensitized to the need for ethical practices and the importance of human values. The Institute has developed the strategic plan manifested as a plurality of “CMRIT Initiatives for Excellence”. These initiatives provide leadership opportunities to a large number of faculty members to make a difference in the institution and create a sense of belonging among them. There are committees and cells: Research Committee, Innovation and Entrepreneurship Cell, Centers of Excellence spanning technology areas across disciplines, Institution Quality Assurance Cell that involves faculty members across departments makes them an integral part of the CMRIT quality journey, and Industry-Institute Connect Cell. CMRIT is particularly cognizant of the importance of the human dimension in running an institution. Hence there are committees that deliberate on Women’s Safety, Redressal of Grievances, COVID-19 appropriate behavior, and preventing ragging to name a few.

The Institute has effective welfare measures for both teaching and non-teaching staff by emphasizing policies in the area of professional growth and personal well-being.

Institutional Values and Best Practices

CMRIT strives to uphold human values and adopts good practices to protect the interests of its stakeholders. CMRIT fosters gender equity and has an inclusive and harmonious working environment. Women Empowerment Cell organizes gender sensitization talks, self-defense programs, counseling sessions, and health and wellness programs. CMRIT has been conducting numerous activities every year to educate students and employees about their constitutional obligations as citizens of India.

CMRIT is highly aware of its responsibility toward the environment. There is an effective mechanism for waste management on campus. Solid waste, liquid waste, e-waste, biomedical waste, and hazardous chemicals are all collected separately, segregated, and transported for treatment/disposal.

Best Practices

1. Unique flexibility for faculty members to contribute through TRCPIE (Teaching, Research, Consultancy, Project Grants, Innovation & Entrepreneurship) activities. Here individual targets are planned and their achievement is assessed annually.
2. Centers of Excellence that gives opportunity to the faculty members to develop specialties and work in multi-disciplinary and inter-disciplinary teams.
3. Hands-on/implementation projects led by faculty members that can address contemporary problems or future needs.
4. Large number of strategic initiatives that give opportunities for faculty members to contribute at institution level and thus develop their leadership abilities.
5. CMRIT TYT Teaching-Learning Process promotes higher-order thinking and makes learning enjoyable.
6. Tie Your LACES (TYL) program hones the professional competency of students related to Programming Language, Aptitude, Core domain, Experiential and Soft-skills, as well as industry-relevant technologies.
7. Experiential learning happens via mini-projects/entrepreneurial projects facilitated by Departments, CoEs, IIT-Bombay E-Yantra center, FOSS-cell, and Internship-cells.
8. The practice of maintaining a Student Transformation Record (STR) to make mentoring more effective.
9. Access to a Professional Counselor and Career Advisor and exposure to motivational speakers through the CMRIT TEDx events.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	CMR INSTITUTE OF TECHNOLOGY
Address	CMR Institute of Technology,132,IT Park Road, Kundalahalli
City	Bangalore
State	Karnataka
Pin	560037
Website	www.cmrit.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Sanjay Jain	080-28524631	9845172755	080-28524630	principal@cmrit.ac.in
IQAC / CIQA coordinator	Swathi Y	080-28524466	9900759571	080-28524630	swathi.y@cmrit.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of establishment of the college	01-01-2000

University to which the college is affiliated/ or which governs the college (if it is a constituent college)

State	University name	Document
Karnataka	Visvesvaraya Technological University	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	22-07-2016	View Document
12B of UGC	09-02-2021	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	07-07-2021	24	Yearly Approval

Details of autonomy

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No
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Recognitions

Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	CMR Institute of Technology,132,IT Park Road, Kundalahalli	Urban	7.63	65619

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Computer Science And Engineering	48	12th Standard or Equivalent	English	180	179
UG	BE,Electronics And Communication Engineering	48	12th Standard or Equivalent	English	240	236
UG	BE,Civil Engineering	48	12th Standard or Equivalent	English	60	23
UG	BE,Electrical And Electronics Engineering	48	12th Standard or Equivalent	English	120	86
UG	BE,Information Science And Engineering	48	12th Standard or Equivalent	English	180	178
UG	BE,Mechanical Engineering	48	12th Standard or Equivalent	English	60	24
UG	BE,Artificial Intelligence And Machine Learning	48	12th Standard or Equivalent	English	60	60

UG	BE,Artificial Intelligence And Data Science	48	12th Standard or Equivalent	English	60	59
PG	Mtech,Electronics And Communication Engineering	24	UG Degree B.E in ECE or IT or EE	English	24	2
PG	MCA,Master Of Computer Applications	24	UG Degree in BCA or BSc BCom BA with Mathematics at 12th or degree level	English	120	120
PG	MBA,Master Of Business Administration	24	Any UG Degree	English	120	120
Doctoral (Ph.D)	PhD or DPhil,Computer Science And Engineering	12	PG Degree Engineering	English	48	24
Doctoral (Ph.D)	PhD or DPhil,Electronics And Communication Engineering	72	PG Degree Engineering	English	32	26
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering	72	PG Degree Engineering	English	8	1
Doctoral (Ph.D)	PhD or DPhil,Electrical And Electronics Engineering	72	PG Degree Engineering	English	16	3
Doctoral (Ph.D)	PhD or DPhil,Mechanical Engineering	72	PG Degree Engineering	English	16	4
Doctoral (Ph.D)	PhD or DPhil,Master	72	PG Degree Engineering	English	40	14

	Of Computer Applications		or MCA			
Doctoral (Ph.D)	PhD or DPhil, Master Of Business Administration	72	PG Degree MBA	English	16	3
Doctoral (Ph.D)	PhD or DPhil, Mathematics	72	PG Degree Mathematics	English	24	7
Doctoral (Ph.D)	PhD or DPhil, Chemistry	72	PG Degree Chemistry	English	24	10
Doctoral (Ph.D)	PhD or DPhil, Physics	72	PG Degree Physics	English	24	6

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0				0				0
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit				0				0				0
Sanctioned by the Management/Society or Other Authorized Bodies				29				66				192
Recruited	20	9	0	29	37	29	0	66	79	113	0	192
Yet to Recruit				0				0				0

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				36
Recruited	25	11	0	36
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	15	53	0	68
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	20	9	0	35	29	0	15	10	0	118
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	2	0	0	64	103	0	169

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
		0	0	0

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	404	182	0	27	613
	Female	253	57	0	4	314
	Others	0	0	0	31	31
PG	Male	104	41	0	0	145
	Female	85	12	0	0	97
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	25	2	0	0	27
	Female	60	9	0	1	70
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	40	43	41	40
	Female	27	26	28	35
	Others	0	0	0	0
ST	Male	11	11	9	12
	Female	3	4	3	4
	Others	0	0	0	0
OBC	Male	164	152	80	96
	Female	115	95	44	72
	Others	0	0	0	0
General	Male	347	426	522	415
	Female	168	205	275	243
	Others	0	0	0	0
Others	Male	72	64	55	38
	Female	36	32	32	28
	Others	0	0	0	0
Total		983	1058	1089	983

Institutional preparedness for NEP

<p>1. Multidisciplinary/interdisciplinary:</p>	<p>To tackle contemporary challenges, increasingly multi-disciplinary and inter-disciplinary approaches are needed. Whereas an interdisciplinary approach is about exploring the interfaces between disciplines, the multi-disciplinary approach calls for in-depth understanding and expertise in more than one discipline simultaneously at play. CMRIT has embraced these dual themes in many ways. CMRIT has set up 17 Centres of Excellence(CoE) that work across departments, in thematic areas such as Additive Manufacturing, Cyber Security. Machine Learning, Robotics, etc. The latest CoE is in Drones Technology, keeping in mind the importance of the emerging technology. An institute-level meeting of</p>
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	<p>CoE Heads held monthly, provides a forum to share goals, plans, progress made, best practices, opportunities, and challenges, thereby breaking any department-level silos. CoEs address competency development across the institute for students as well faculty members. CMRIT has particularly focused on Innovation and Entrepreneurship and managed to achieve an 'Excellent' rating in the AICTE ARIIA (Atal Ranking of Institutions on Innovation Achievements) ranking. Here again, the Innovation and Entrepreneurship cells collaborate across departments spreading knowledge on design thinking, ideation, innovation, patent filing, and entrepreneurship. The multi-disciplinary approach is not restricted to Engineering Disciplines. In fact some of the research work at CMRIT addresses the application of computing to health care, linguistics, etc. Coming to a regular curriculum, VTU has an Open Elective scheme that requires students to choose other department subjects. CMRIT also was one of the first few institutes to offer newly introduced programs by VTU in 'AI and Data Science' and 'AI and Machine Learning'.</p>
<p>2. Academic bank of credits (ABC):</p>	<p>The National Educational Policy proposes to give a high degree of flexibility to students in their pursuit of learning. This includes, say a 4-year undergraduate degree, and additional exit options at the end of the first, second, or third year with a certificate or diploma. In addition, the students can earn their credits across various recognized Higher Education Institutions, which get considered for the ultimate award of a degree by one of them. To facilitate this scheme, it is proposed that an Academic Bank of Credit will be set up at a national level that digitally stores the academic credits earned by students from various recognized HEI's. CMRIT is affiliated with VTU Belagavi, and degrees are conferred by VTU. As and when VTU decides to formalize the ABC scheme for its affiliated colleges, CMRIT will eagerly participate in the same. It is hoped that the ABC scheme will additionally benefit students by exposing them to more than one cultural environment and prepare them for more fulfilling careers.</p>
<p>3. Skill development:</p>	<p>CMRIT gives a lot of importance to skill development, whether it is for students or for faculty members. Students are encouraged to undergo certifications for specific skills, and participate in</p>

mini-projects and MOOCs. Students are also put through a well-structured and systematic skill development plan which has courses, practical assignments, and tests. CMRIT has designed Tie-Your-LACES (TYL) program which covers Language, Aptitude, Core Technical, Experiential and Soft Skills. TYL Program is delivered over multiple semesters in a planned manner. The students also have opportunities to participate in internship programs either at Industry premises or in remote mode. CMRIT actively participates in Smart-India Hackathon organized at the national level. Then the students participate in projects as part of CoE, I&E Cell, Start-up, Social Project, and in support of department/institutional initiatives. Currently, there is increasing interest among industry partners to offer projects to be done at CMRIT, as part of consulting engagements. CMRIT has student chapters of professional bodies such as IEEE, ISTE, and IEI. Very recently CMRIT has become a member of SCRS (Soft Computing Research Society). Another unique feature of CMRIT is Student Clubs many of which address skill development through competitions. Institute offers foreign language training in Japanese, German, French, Korean, Spanish, and Dutch through External Examination and Competition (EE&C) CMRIT cell. This gives the students an edge while competing for international placements.

4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):

CMRIT faculty members participated in AICTE FDP on Indian Knowledge Systems last year and have developed a good degree of awareness about the importance of the Indian Knowledge System in particular the scientific and mathematical knowledge embedded in them. Some of the research work underway at CMRIT relates to the study of Indian languages and applying modern techniques to ancient Indian texts. A proposal titled “Unified Framework for Analysis of Indian Languages” is submitted to SERB under the CRG scheme. Faculty members are encouraged to undergo MOOCs that dwell on continual progress made by India from the Vedic era to modern times in disciplines such as Mathematics and natural sciences. Further CMRIT has actively participated in ‘Ek Bharat Shrestha Bharat’ program of the Government of India. This helps boost awareness of India, its tradition, heritage, and culture

	<p>among the student body who typically hails from all over India. CMRIT collaborates with bodies such as SPICMACAY to promote Indian Culture. There are clubs related to fine arts and music as well as many cultural events that encourage faculty to showcase their Indian-ness. In the coming years, CMRIT will participate in more and more projects that can help promote Indian Knowledge and reinvigorate it. CMRIT faculty members are also encouraged to develop textbooks in Indian Languages.</p>
<p>5. Focus on Outcome based education (OBE):</p>	<p>CMRIT has embraced out-come based education policy wholeheartedly with appropriate processes, practices, and tools. All eligible CMRIT UG programs are NBA accredited. Each subject has clearly defined Course Outcomes which in turn align with Program Outcomes and Program Specific Outcomes. Achievement of COs and POs is tracked for every student. Further, CMRIT has defined a comprehensive teaching-learning process named TYT(Touch Your TOES) starts with setting objectives session(why should a student study a course), then preparing the content(what is to be delivered) followed by mode of delivery (how it is to be delivered), evaluation content and mode of evaluation, and finally with a terminal retrospective step. In addition to the common practice of having a chief course instructor or anchor teacher, there are knowledge reviewers who review teaching from the viewpoint of content/knowledge and process reviewers who review teaching from the viewpoint of pedagogy. To complement academic teaching guest speakers from the industry are invited to cover what is happening in the industry in a given discipline. Students are also encouraged to use virtual labs and participate in Flip Classes. Video Lectures are additionally conducted to make learning richer. Overall there are 3 objectives to the CMRIT teaching-learning process: (i) achieving learning outcomes, (ii) making learning enjoyable, and (iii) developing higher-order thinking, concomitantly developing their knowledge-base, conceptual understanding, and imagination. IQAC conducts various training on CO-PO every semester for all the newly joined teachers. The certification test will be taken after the training to ensure awareness of the same.</p>
<p>6. Distance education/online education:</p>	<p>Currently, Distance/Open Education in India is regulated by the UGC and only certain universities</p>

are authorized to offer Distance Education. In Karnataka, there are seven universities that offer such education. As of now VTU, with which CMRIT is affiliated, does not offer distance education. When it comes to Online Education universities and colleges across India can at most offer certification programs. However, as and when distance/online education becomes the norm and accepted by regulators, CMRIT is well-poised to capitalize on the same. Like other institutions, during the COVID-19 pandemic, CMRIT was forced to deliver education in online mode to students who otherwise would have been on campus. Further, over the last few years, CMRIT had mandated that both students and faculty members take up a MOOC every semester. The academic community at CMRIT has become well-versed with online education, its advantages, and its limitations. Flip Classes and Video Lectures are part of the curriculum delivery plan at CMRIT. CMRIT teachers have conducted classes in online mode as well as hybrid mode. In summary, CMRIT is well-prepared to deliver flexible modes of education and participate in the Education Revolution waiting to be unleashed.

Extended Profile

1 Program

1.1

Number of courses offered by the Institution across all programs during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
446	475	520	483	488
File Description		Document		
Institutional data prescribed format		View Document		

1.2

Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
10	10	10	14	14

2 Students

2.1

Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
4191	4670	4822	4866	5008
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
223	223	223	223	223

File Description	Document
Institutional data in prescribed format	View Document

2.3

Number of outgoing / final year students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
982	966	984	1059	978

File Description	Document
Institutional data in prescribed format	View Document

3 Teachers

3.1

Number of full time teachers year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
292	293	296	299	319

File Description	Document
Institutional data in prescribed format	View Document

3.2

Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
288	294	294	313	313

File Description	Document
Institutional data in prescribed format	View Document

4 Institution

4.1

Total number of classrooms and seminar halls

Response: 90

4.2

Total Expenditure excluding salary year-wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
782.47	1330.94	1408.49	1447.79	948.18

4.3

Number of Computers

Response: 1344

NAAC

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1 The Institution ensures effective curriculum delivery through a well planned and documented process

Response:

CMR Institute of Technology, affiliated to Visvesvaraya Technological University (VTU), has developed and deployed following process for effective delivery of curriculum;

The academic calendar with date of commencement of the academic session, the duration of the semester, practical exam schedule and final semester examinations which is provided by the VTU is taken as a base for preparing a curriculum delivery plan. A well-structured academic calendar in line with the VTU academic calendar is prepared by the IQAC (Internal Quality Assurance Cell along with action plan for conducting co-curricular and extra-curricular activities to enrich the curriculum is also included in the detailed academic calendar.

The Head of the Department allocates the courses to the faculty members based on expertise and preference given by the faculties. Class wise and Course wise time tables will be prepared for effective planning and delivery of courses and the same will be shared with faculties' and students. Each faculty prepares a complete course plan before the commencement of the semester along with plans for filling curricular gaps, content beyond syllabus (invited lectures/workshops). The commencement of the semester is conveyed through common notice, Email, WhatsApp, and SMS through an in-house ERP system. The Head of the Department monitors the academic activities regularly through an integrated faculties and students management information system.

Faculties impart the curriculum through student-centric learning methods, such as assignments, workbooks, peer learning, mini projects, NPTEL lectures, group discussions, workshops, quiz, role-play, seminars, projects, industrial visits, etc., and innovative teaching methods such as Google classroom, Flipped Class, Webinars, Tech talks, Conferences, etc. besides the regular/traditional chalk and talk methods. Add-on courses for improving placement is implemented through a participative learning program called **Tie Your Laces (TYL)**.

An effective Teaching and Learning Process **Touch Your TOES (TYT)** is implemented in the college with the following objectives:

- To promote higher order of **Thinking**.
- To achieve the expected learning **Outcomes**, and
- To create a positive learning **Experience** for **Students**

TYT follows five Steps Process for Effective Teaching Learning and reviews to analyze outcome

1. Expectation

- a. Content for setting expectation
 - b. Delivery of expectation set
2. Teaching Content
 - a. Development of teaching content
 - b. Execution/ Delivery of teaching content
 3. Evaluation
 - a. Evaluation content preparation
 - b. Evaluation Execution
 4. Retrospective
 5. IQAC Action

- **Knowledge Review (K Review)**

Reviews overall learning outcomes and higher-order thinking

- **Process Review (P Review)**

Reviews learning experience with blended learning, flip classroom and virtual labs.

- **HoD Review (H Review)**

Reviews K and P reviewer feedback and submit retrospective view about the entire process

The IQAC conducts periodic reviews about the effective implementation of the course delivery through K-review and P-review. IQAC performs academic audit and collects feedback from the students on curriculum delivery twice a semester to identify gaps. Faculties with less feedback will be mentored after identifying the root cause by senior faculty members and HOD for improvement and best practices followed by the faculties with more than 90% feedback are collected shared with others.

File Description	Document
Link for Additional information	View Document

1.1.2 The institution adheres to the academic calendar including for the conduct of CIE

Response:

In line with VTU calendar, institute prepares and publish the 'Academic Calendar' before the commencement of the academic semester. The calendar contains all relevant information regarding the teaching-learning schedule (working days), various events to be organized, holidays, Schedule of co-curricular activities, Schedule of extra-curricular activities, Tentative period of various feedback collection, dates of internal examination, semester examination, etc. This takes care of curriculum plan along with activities like internships, industrial visits, community activities by Cells and Clubs, besides Continuous Internal Evaluation (CIE) strategies like tests, assignments, quizzes, presentations, etc. The Placement Cell will be able to communicate to the recruiters on when students would be able to join for internships or full-time placements based on the academic calendar.

The finalized academic calendar is displayed on the notice boards of the departments and also communicated to students and faculty. Based on the academic calendar, all the faculty members prepare lesson plans, topics to be handled, and ensures unit-wise completion as per internal exam dates.

For the implementation of the Internal Assessment Process, an Examination committee is formed at the college level which monitors the overall internal assessment process. Examination Cell convener issues a circular to the Internal Assessment(IA) Coordinator of the department to prepare the IA timetable in advance of the IA test as per the scheduled dates in the Calendar of Events(COE) and the same is notified and circulated to students and staffs. Common date and time are followed for the common courses like open electives to all branches

- The first Internal assessment test of the semester is generally scheduled in the fifth week after the commencement of the semester followed by second and third internal tests after a four-week duration each.
- Three internal tests will be conducted within the semester and students will have to take two tests per day.
- Before starting each internal assessment test, assignments are given to the students for each subject which includes homework, problem-solving, Group discussion, and quiz.
- Internals is conducted, evaluated, and marks obtained are entered in ERP by the faculty. Scheme and solution are prepared before evaluation and discussed with students. The same will be uploaded to the library as per the calendar of events.

CMRIT makes use of a holistic planning process that factors curricular activities, learning beyond the syllabus, imparting students with life skills, etc. To underscore the importance of student participation, two afternoons in mid-week are freed up for students to engage in Department Level and Institution Level Activities. These also provide a window for students to engage with the faculty members for mentoring, career counseling, and project guidance.

In addition to the academic calendar, the institute also prepares an IQAC calendar that captures events related only to staff members. Details of various academic-related activities, periodic meetings with stakeholders, academic audit, student's feedback and other faculty-related activities will be published in this calendar.

File Description	Document
Link for Additional information	View Document

1.1.3 Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years

1. Academic council/BoS of Affiliating university
2. Setting of question papers for UG/PG programs
3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses
4. Assessment /evaluation process of the affiliating University

Response: A. All of the above

File Description	Document
Institutional data in prescribed format	View Document
Details of participation of teachers in various bodies/activities provided as a response to the metric	View Document
Link for Additional information	View Document

1.2 Academic Flexibility

1.2.1 Percentage of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

Response: 100

1.2.1.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 10

File Description	Document
Minutes of relevant Academic Council/ BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2.2 Number of Add on /Certificate programs offered during the last five years

Response: 197

1.2.2.1 How many Add on /Certificate programs are offered within the last 5 years.

2020-21	2019-20	2018-19	2017-18	2016-17
58	55	25	29	30

File Description	Document
List of Add on /Certificate programs	View Document
Brochure or any other document relating to Add on /Certificate programs	View Document
Any additional information	View Document
Link for Additional information	View Document

1.2.3 Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last five years

Response: 74.72

1.2.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
4191	4582	4015	2103	2453

File Description	Document
Details of the students enrolled in Subjects related to certificate/Add-on programs	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

Response:

The issues of importance like Gender inequality, Environmental sustainability, Human Values, Professional Ethics, etc. find ample space in the curriculum. CMRIT maintains a healthy academic environment and is dedicated to sensitizing students to socially, professionally, and ethically relevant issues like Professional Ethics, Gender, Human Values, Environment and Sustainability, Energy Conservation, Mental health, Women Empowerment, and Health awareness for their holistic development.

CMRIT has various committees with members from both faculties and students to take care of activities like;

- Anti-Ragging Committee
- Human Rights
- Anti-Sexual harassment committee
- Gender Equality
- Environment and Sustainability
- Universal Human Values
- Professional Ethics
- Connecting to the Community

Additional Information: <https://www.cmrit.ac.in/naac/curriculum-enrichment/>

File Description	Document
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.	View Document
Any additional information	View Document

1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during last five years

Response: 19.03

1.3.2.1 Number of courses that include experiential learning through project work/field work/internship year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
124	127	120	63	22

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any Average percentage of courses that include experiential learning through project work/field work/internship	View Document
Any additional information	View Document

1.3.3 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)	
Response: 100	
1.3.3.1 Number of students undertaking project work/field work / internships	
Response: 4191	
File Description	Document
List of programmes and number of students undertaking project work/field work/ /internships	View Document

1.4 Feedback System

1.4.1 Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders 1) Students 2)Teachers 3)Employers 4)Alumni	
Response: A. All of the above	
File Description	Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document
URL for stakeholder feedback report	View Document

1.4.2 Feedback process of the Institution may be classified as follows: Options:
<ol style="list-style-type: none"> 1.Feedback collected, analysed and action taken and feedback available on website 2.Feedback collected, analysed and action has been taken 3.Feedback collected and analysed 4.Feedback collected 5. Feedback not collected
Response: A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document
URL for feedback report	View Document

NAAC

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 80.7

2.1.1.1 Number of students admitted year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
983	1058	1089	983	1005

2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1248	1248	1248	1302	1302

File Description

Document

Institutional data in prescribed format

[View Document](#)

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)

Response: 99.73

2.1.2.1 Number of actual students admitted from the reserved categories year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
223	222	223	223	221

File Description

Document

Average percentage of seats filled against seats reserved

[View Document](#)

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Response:

Slow learners:

Slow learners are identified based on previous exam / current sem internal test performance.

- As per the AICTE & VTU Guidelines, 3-Weeks Student Induction Program (SIP) is conducted during which students are assessed on learning levels, and personality tests and are guided about support systems available.
- The intensive Coaching program (ICP) is incorporated into the timetable for slow learners.
 1. The syllabus is revised with more attention given to the difficult topics.
 2. Handouts are prepared and given to the students as a supplement to the study materials.
 1. Students are trained to answer/solve independently.
 2. Follow-up sessions are scheduled during which an improvement test is conducted. Scores in this test are compared with previous scores and progress is analyzed.
 3. Students are also encouraged to participate in group discussions and self-study.
- The Course Instructors, class teachers, and mentors analyze their performance periodically and communicate to parents.
- The Peer Learning team and Peer Support teams work on helping these students to learn better
- Remedial classes are conducted for year-back students

Advanced Learners:

Advanced learners are identified through their performance in previous exams, internal tests, and interaction in the classroom. They are encouraged in various ways to hone their technical and soft skills.

- Participate in workshops and seminars to gain knowledge on the latest developments in the industry.
- Take up industry-based projects and mini-projects in the advanced topics under the guidance of the faculty members and are encouraged to present/publish their work
- Get trained by faculty members who are rank holders themselves, focusing on exam preparation and presentation skills.
- Provided with additional best lecture site links and course materials apart from regular ones.
- The leadership and team-building skills are nurtured and groomed through the organization of workshops, conferences, and symposia.

In addition to the above, the best performing students who are top in university examinations will be felicitated by CMRIT during the orientation program to motivate them to continue their excellence in academics.

2016-17 Rank holders:

- Veena Mohan (M.Tech DC-TCE) – **3rd Rank**
- S.Dhivya (ECE)- **5th Rank**

- Mohammed Zeeshan Sayeed (CV) – **6th Rank**
- D.Priyadharshini (ISE) – **7th Rank**

2017-18 Rank holders:

- Sukanya P (MCA) - 1CY15MCA23 - **1st Rank**
- Sandhya K V (M.Tech. LDC) - 1CR16LDC03 - **2nd Rank**
- Moumita Manna (M.Tech. LVS) - 1CR16LVS01 - **4th Rank**
- Kavya S (IS) - 1CR14IS043 - **6th Rank**
- Rakshitha.T (TCE) - 1CR14TE057 - **6th Rank**
- Swati (M.Tech. SCN) - 1CR16SCN02 - **6th Rank**

2018-19 Rank Holders:

- Ayesha Banu(TCE) - 1CR15TE012 – **1STRank**
- DhruvVatsa Mishra (ISE)- 1CR15IS025- **3RD Rank**
- Rashmishree Raul (ISE)- 1CR15IS079- **9TH Rank**
- Thejas Manjunath(ECE)- 1CR15EC197- **9TH Rank**

PG

- Mamatha N (LVS)- 1CR17LVS04- **3RD Rank**
- Maimunisha Khan (MCA)- 1CR16MCA16- **3RD Rank**
- Chandrashekar N (LVS)- 1CR17LVS02- **9TH Rank**

2019-20 Rank Holders:

- Sums N G (M.Tech-CSE) – **1st Rank**
- Lavanya(MCA) -**3rd Rank**
- Sakshi Mishra(TCE) -**9th Rank**

2020-21 Rank Holders:

- Ramya T (CSE) – 1CR17CS107– **1st Rank**
- Shreya R (CSE) – 1CR17CS141- **5th Rank**
- K Vaishnavi (CSE) – 1CR17TE025 – **5th Rank**
- Prakhyath Jain (CSE) – 1CR17CS094 - **6th Rank**
- Sanjana M (MECH) – 1CR17ME071 – **7th Rank**

File Description	Document
Upload any additional information	View Document

2.2.2 Student- Full time teacher ratio (Data for the latest completed academic year)**Response:** 14:1

File Description	Document
Any additional information	View Document

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Response:

Category: *Experiential learning*

- To create a hands-on experience, students are guided to do mini projects (6 man-days per semester per student, Department Research Committee (DRC) reviewed, allotted on 1st day, 3 evaluations, and awards right from their first semester along with entrepreneurial mini-projects (One Entrepreneurial project in the pre-final year) and research article presentation. Experiential learning has contributed to the inculcation of application skills, good quality projects, and greater participation of students in national level completions such as the Smart India Hackathon and FKCCI MANTHAN. This exposure has inspired student startups.
- Close interaction with industry and professional bodies is maintained to train students and transform them into competent professionals. IIT-B e-yantra center, FOSS cell, and Internship cell support students in their activities of interest.
- Village adoption and providing technological solutions to specially challenged sections of the society. Students contribute to projects through UBA and Enable India programs.
- Maker-space state of the art lab facility available for students
- Laboratories available beyond working hours
- Awards for exceptional projects
- Participation in National and International competitions
- CMRIT has 17 Centers of Excellence (CoEs) in different areas to engage in mega applications on technology excellence and applied research. They conduct certification programs.

More details are available on the CMRIT website.

(<https://www.cmrit.ac.in/> ----> Cells ----> Research Committee ---> Downloads)

- CoEs offer research projects which will help in securing admission to higher studies at premier organizations as well as high-paying jobs in product companies.

Participative Learning: Participative learning is emphasized through

- Flip classes
- Seminars
- Peer Learning team sessions
- Group Discussions

Co-curricular learning

- MoUs with companies and social organizations to expose students to the external world through various technical and social activities.
- **Student Club Activities:** Google, Mozilla, IEEE, CSE, ISTE, and departmental clubs for showcasing talents, teamwork, leadership skill, and community learning of foreign languages or technologies.
- Music, ART, Photography, Dance, Literary, Theatre, Media, and Well-being clubs.
- Cultural, Sports, and NSS activities.

* More details are available at the CMRIT website: <https://www.cmrit.ac.in/student-clubs/>

Problem Solving Methodologies:

- Tutorial classes
- Use of e-contents for learning and assignments
- GATE coverage and assessment
- A workbook designed by faculty members offers exercises/ challenging problems of different cognitive levels

File Description	Document
Link for additional information	View Document

2.3.2 Teachers use ICT enabled tools for effective teaching-learning process.

Response:

The Institute follows ICT-enabled teaching in addition to traditional classroom education. Subsequent efforts are taken by the institute to provide an e-learning atmosphere in the classroom. The campus is technology-enabled with 24X7 Wi-Fi and internet facilities for the staff and students.

1. In addition to the chalk and talk method of teaching, the faculty members are using ICT-enabled learning tools such as a tablet, whiteboard, PPT, Video clippings, Audio system, and online sources, to expose the students to advanced knowledge and practical learning.
2. Online video conferencing tools adopted on campus include Cisco Webex, Google Meet, Zoom, and Microsoft Teams for conducting classes online by all the course instructors whenever needed.
3. Faculties provide links for SWAYAM & NPTEL Lecture series, and YouTube Videos after every module in the lesson plan to enhance learning effectiveness.
4. Classrooms are fully furnished with LCD projectors.
5. Faculties use Learning Management Systems like Google Classroom and content materials folder for sharing the course content and for submission of assignments.
6. The digital library of the college is having open access to e-books, e-journals, and e-resources like notes, question paper solutions, etc.
7. Students are advised to register for MOOCs (Massive Open Online Courses) at NPTEL, VTU e-Learning, edX, and Coursera videos and take up assignments.
8. Flip classroom
9. Video sessions

10. Virtual labs

11. In the classroom, students are encouraged to give presentations to improve their basic knowledge and communication/articulation skills in the respective subject.

File Description	Document
Upload any additional information	View Document
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 15:1

2.3.3.1 Number of mentors

Response: 280

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll.	View Document
mentor/mentee ratio	View Document
Circulars pertaining to assigning mentors to mentees	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 99.83

File Description	Document
Year wise full time teachers and sanctioned posts for 5years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Response: 24.67

2.4.2.1 Number of full time teachers with *Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt.* year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
104	96	64	50	53

File Description	Document
List of number of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. and number of full time teachers for 5 years (Data Template)	View Document
Any additional information	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 5.48

2.4.3.1 Total experience of full-time teachers

Response: 1599.9

File Description	Document
List of Teachers including their PAN, designation, dept and experience details(Data Template)	View Document

2.5 Evaluation Process and Reforms

2.5.1 Mechanism of internal assessment is transparent and robust in terms of frequency and mode

Response:

Institute is affiliated to VTU, Belagavi, the rules and regulations for the evaluation process are laid down by the affiliating University and are communicated to students through syllabus copies supplied at the beginning of the first year of their academic program.

- The schedule of the semester Internal Assessment Test (IAT) is given in the academic calendar which is displayed well in advance before the commencement of the session.
- Three internal assessment tests are given during each semester, time table for which is prepared well in advance and communicated to the students.

- Internal Assessment Test moderation Committee is responsible for the entire process of Internal Assessment including redressal of grievances if any. It is empowered to check the assessment whether it maps with learning outcomes, the difficulty level of the question paper, whether the assessment modes are used to cover the entire syllabus or not, and checking the manner of awarding the marks.
- One week before IAT, the chief IAT coordinator conducts a meeting with departmental test coordinators to discuss IAT exam conduction (timetable, faculty invigilation duty, IAT question papers, etc.)
- The internal assessment evaluation process is communicated to students by the respective faculty and also during the orientation program for first-year students.
- IA (Internal Assessment) coordinator of respective departments will steer the process of conducting Internal Assessment. IA test date & schedule, allotment of invigilation duties, room & seat allotment, timelines for submission for question papers, and evaluation of answer scripts decided by the departmental heads.
- Question papers are set based on course outcomes mapped with Bloom's Taxonomy levels. Workshops have been conducted to train faculty to set the question paper thought-provoking questions. Question papers are approved by heads of the department and CCI (chief course instructor).
- The scheme and solutions are approved by respective HODs. Evaluation of blue books is based on scheme and solution. A scheme of evaluation and a detailed solution is shared with students by the respective subject faculty and students are encouraged to self-evaluate.
- The blue books are given to students after the completion of the evaluation for verification of the marks.
- Finally, marks obtained by students in internal examinations are entered in college ERP and communicated to students and parents.
- After each IAT, low-scoring students are identified and are mentored through ICP classes. Parent-Teachers meetings are periodically held to monitor the progress of students.

File Description	Document
Link for additional information	View Document

2.5.2 Mechanism to deal with internal/external examination related grievances is transparent, time-bound and efficient

Response:

The internal assessment test process is transparent as per the affiliating university (VTU) guidelines.

- At the beginning of the semester, faculty members inform the students about the various components of the assessment process during the semester.
- IAT is centralized in the college. To ensure proper conduction of formative IATs, one invigilator is assigned to each hall. HOD/professor will be in charge of each floor for smooth conduction of IATs.
- The seating plan of IATs is displayed on the notice board along with the internal assessment timetable.

- For each exam hall, only 30 students will be allotted and absentee details are entered in the examination form and submitted to the respective department.
- If students are facing any problems during IATs, it is solved by the IAT moderation committee which has a mandate to check error-free question paper, and the evaluation process.
- The corrected answer papers of the students are distributed to them within a week after the IAT for verification and any grievance is redressed immediately.
- Each faculty prepares a scheme and solution after each IAT and shares it with students and also on the library portal.
- Final internal marks will be shared with students before entering the university portal.

The college also has a Grievance Redress committee. The committee meets regularly to look into the complaints. The mechanism to analyze the grievances is given below:

- The link is provided on the website to give grievances/complaints which will be addressed by the grievance redress committee.
- Committee decides the nature of the grievance/complaint received.
- The committee submits the report to the Principal/Vice Principal
- As per the committee report, action is taken thereon.
- If required, the Principal sets up an inquiry committee to study and resolve the matter.
- We have kept suggestion/complaint boxes at prominent places in the college premises to provide easy access for staff and students to put forth their grouses, which are opened regularly and prompt redress is done.

Link to register Grievance & Complaints: (<https://www.cmrit.ac.in/> ----> Information (at bottom) ----> Grievance & Complaints) --- (<https://erp.cmrit.ac.in/login.htm>)

Step 1: Login to ERP (<https://erp.cmrit.ac.in/login.htm>)

Step 2: Go to personal/communication----->Grievance----->Raise observation----->Grievance Report.

Step 3: Click on services (Examination/Hostel/Library/Security....)

Step 4: Select complaint priority from 1 to 5 i.e low to high priority.

Step 5: Select complaint subject

Step 6: Type complaint description.

Step 7: Upload Image

Step 8: Forward the complaint and Submit the Grievance.

File Description	Document
Any additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Response:

Program Outcomes (POs) are the statements that describe the qualities/competencies of a graduate acquired throughout the program. POs are derived from the graduate attributes, which vary from UG to PG programs. All the POs are defined based on the knowledge, skill, and attitude components. The statements of POs are defined by the National Board of Accreditation for Engineering, MBA, and MCA programs. In addition to this, each program defines Program Specific Outcomes (PSOs) that pertain to a given discipline. These POs and PSOs are updated on the institution's website under each department, Display boards in prominent locations, Academic files of course instructors, Laboratory Manuals, and Staff Rooms.

Ex: For Information Science and Engineering: <https://www.cmrit.ac.in/information-science-engineering/>

Course Outcomes (COs) are defined for every course by the faculty and are aligned to one or more POs. These are measured at the end of the course, through various assessments, designed specifically to effectively measure the CO and contribute to the PO that it is mapped to. The number of COs for a course is not fixed and it is decided by the course coordinator. These COs are communicated as follows:

- Students were informed about CO and POs during the first class at the beginning of the semester and also during the beginning of each module. As per the teaching-learning process defined, each faculty should set the expectations for the course which covers COs, POs, and PSOs along with the evaluation mechanism.
- Syllabus: All courses of the curriculum have well-defined COS given by the university. The softcopy of the syllabus is shared with every student.
- Lesson Plan: At the beginning of the semester faculty prepares the lesson plan which includes course objectives and outcomes along with the CO-PO mapping with its strength.
- Website: The syllabus of all programs offered by the department is uploaded on the College website which includes the COs of various courses of the curriculum.
- Course handout: The course handouts for every program includes Vision-Mission, PEOs, POs,
- PSOs of the Program offered by the department, and COs of various courses of the Curriculum
- Library: Institute's central library keeps all the POs, PSOs, and COs for easy access to students and faculty through the syllabus books of various programs.
- Lab Manual: All POs, PSOs, and COs of specific lab courses are printed on lab manuals and issued to all students at the beginning of every semester.
- Course Files: All the faculty members will prepare a course file for each semester that lists the POs, PSOs, and COs.
- IAT Question Papers and Assignments: Question paper and assignment pattern ensure mapping of COs to all the questions.

IQAC conducts various training programs on CO-PO every semester for all the newly joined teachers. The certification test will be taken after the training to ensure awareness of the same.

File Description	Document
Past link for Additional information	View Document

2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

Response:

In a university-affiliated college, the CO attainment levels are measured based on the results of the internal assessment conducted by the institute and the external examination conducted by the university. This is a direct measurement of attainment. During a semester, three internal assessment tests (IAT) are conducted. Course attainment levels are calculated using the below steps

STEP 1

The course outcomes (CO) are defined and mapped to Program outcomes (PO) on a scale of 1 to 3. The highest correlation is 3.

Step-2:

Maximum marks allotted to each question mapped to a cognitive level and the corresponding CO. Record the percentage of students achieving a set percentage of max marks allotted to an individual CO in a given IAT.

STEP 3

An average of three IATs of a student are used for calculating attainment levels for CO. The process is described below.

Set $M3 > M2 > M1$ and $S3 > S2 > S1$,

Condition		
IF $S3 \%$ of students score $\geq M3\%$ of Max marks allotted to CO ->	Att. Lev. 3	
ELSE IF $S2\%$ of students score $\geq M2\%$ of Max marks allotted to CO ->	Att. Lev. 2	
ELSE IF $S1\%$ of students score $\geq M1\%$ of Max marks allotted to CO ->	Att. Lev. 1	
ELSE	Att. Lev. 0	

STEP 4

Repeat the above rubric to evaluate all COs.

STEP 5

Rubrics for internal assessment test

60% Stud $\geq 70\%$ of max marks allocated to CO: ATT 3

50% Stud $\geq 70\%$ of max marks allocated to CO: ATT 2

40% Stud \geq 70% of max marks allocated to CO: ATT 1

Rubrics for external assessment test

60% Stud \geq 55% of max marks: ATT 3

50% Stud \geq 55% of max marks: ATT 2

40% Stud \geq 55% of max marks: ATT 1

STEP 6

CO attainment level for that course is $0.8 * \text{External Attainment} + 0.2 * \text{Internal Attainment}$

STEP 7

Program outcomes are attained through the attainment of COs. For a given course, all COs are mapped to certain POs, as shown in STEP 1. The overall CO attainment value as computed in STEP 7 and the CO-PO mapping values given in STEP 1 is used to compute the attainment of POs.

STEP 8

PO attainment can be computed for a batch using the below formula. Indirect attainment is determined from student exit surveys, employer surveys, co-curricular activities, and extracurricular activities mapped to POs. A questionnaire is designed for this purpose and the average response of the outgoing students for each PO is computed.

The same method is used for PSOs.

File Description	Document
Upload any additional information	View Document

2.6.3 Average pass percentage of Students during last five years

Response: 95.27

NAAC

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Response: 492.88

3.1.1.1 Total Grants from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
102.57	170.32	90.21	55.64	74.14

File Description	Document
List of endowments / projects with details of grants	View Document
e-copies of the grant award letters for sponsored research projects / endowments	View Document

3.1.2 Percentage of teachers recognized as research guides (latest completed academic year)

Response: 19.52

3.1.2.1 Number of teachers recognized as research guides

Response: 57

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.1.3 Percentage of departments having Research projects funded by government and non government agencies during the last five years

Response: 58.62

3.1.3.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
9	6	8	7	4

3.1.3.2 Number of departments offering academic programmes

2020-21	2019-20	2018-19	2017-18	2016-17
10	10	10	14	14

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Any additional information	View Document

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

Response:

To instill creativity and encourage entrepreneurship, CMRIT trains students on Design Thinking, Intellectual Properties, and Startups. The students are encouraged to participate in open competitions and venture into their start-ups CMRIT has an Innovation & Entrepreneurship (I&E) Cell in every department. The I&E cell targets to create an ecosystem for student entrepreneurs which includes ethics, morals, values, funding, start-up support, mentoring, development of emotional intelligence, academic mentoring, field touch, social consciousness, environmental impact, etc.

- Design thinking workshop for all students across departments.
- Patent drafting and filing workshops
- Start-Up workshops for students.
- Students participate in National level hackathons like SMART INDIA HACKATHON, NATIONAL INNOVATION CONTEST, DRUG DISCOVERY, TOYCATHON ETC.
- Mentor students to get involved in innovative projects and hone their entrepreneurial skills.
- ? Motivate and mentor students to become future Innovators and Entrepreneurs

CMRIT has 17 Centers of Excellence (CoEs) in different areas to engage in mega applications on technology excellence and applied research.

The Research Committee (RC) of CMRIT is the main body responsible for enhancing the quality of

research and innovation activities taken up by faculty members and students. Each department would have Department Research Committee for overseeing research activities in the department and for guiding the faculty and students in their research efforts.

IPR Cell: CMRIT has established an IPR Cell in collaboration with KSCST (Karnataka State Council for Science and Technology).

The main objectives are:

- To create awareness about IPRs for faculty members and students by organizing workshops, seminars, and training courses within its integrated campus.
- To enable patent searches in the institution.
- To guide CMRGI inventors concerning patenting their inventions with the help of an authorized patent attorney.
- To impart training on future endeavors regarding patent filing processes.
- To create an opportunity for product development and commercialization.
- To arrange a periodic meeting with faculty members/students along with officers of the Patent Information Centre (PIC), KSCST for identifying patentable inventions.

To create a hands-on experience, students are guided to do mini projects right from their first semester along with entrepreneurial mini-projects and research article presentations.

CMRIT has started the MHRD IIC with the following responsibilities & activities

1. Bring awareness of innovation ecosystem in India
2. Expose students to expert talk series organized online by MHRD & AICTE
3. Handhold student entrepreneurs by offering niche training in design thinking, finance, sales, marketing, HR, etc.
4. Provide one to one counseling to student entrepreneurs and potential student entrepreneurs

File Description	Document
Paste link for additional information	View Document

3.2.2 Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the last five years

Response: 203

3.2.2.1 Total number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
120	37	21	11	14

File Description	Document
Report of the event	View Document
List of workshops/seminars during last 5 years	View Document

3.3 Research Publications and Awards

3.3.1 Number of Ph.Ds registered per eligible teacher during the last five years	
Response: 1.6	
3.3.1.1 How many Ph.Ds registered per eligible teacher within last five years	
Response: 91	
3.3.1.2 Number of teachers recognized as guides during the last five years	
Response: 57	
File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
Any additional information	View Document

3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 1.39

3.3.2.1 Number of research papers in the Journals notified on UGC website during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
208	92	50	38	28

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document
Any additional information	View Document

3.3.3 Number of books and chapters in edited volumes/books published and papers published in

national/ international conference proceedings per teacher during last five years**Response:** 1.9**3.3.3.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
329	107	54	44	35

File Description	Document
List books and chapters edited volumes/ books published	View Document

3.4 Extension Activities**3.4.1 Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.****Response:**

CMRIT envisions creating a society with equitable distribution of resources. Our campaigns on Save Environment, Drug-free society, AIDS Awareness, Clean school, Train the teachers; Blood donation, Health camps, waste management, Village adoption, etc. are only a minuscule of our activities to contribute to the society. Student groups plan and execute every activity under the guidance of faculty. This enables them to get in-depth knowledge of social issues and propose technological solutions. Students inculcate creativity, sensitivity towards society, leadership necessary for their all-round development.

Our institution has made a noteworthy contribution to the society and environment by making proactive participation in engaging the student community directed towards rural development. NSS unit and a team of committed faculty members engage students in the community development programs. Rural India has been facing uncleanliness, unhygienic, malnutrition conditions and the most important problem is open defecation. Lack of awareness is noted among the villagers about such problems as health, cleanliness, and diseases. CMRIT has adopted several villages and completed development works like Installation of Biogas plant, Solar Tree, Cleanliness drive, Literacy campaign. While working on these activities, our students joined hands with local panchayat and self-help groups in planning and executing the work. Our students have expressed that these opportunities have provided them invaluable experience and given them the strength to face challenges.

Blood donation camp organized every semester strengthens the sense of empathy and compassion among donors and also instills in them a sense of commitment and ethical responsibility. Programs on gender equality such as women empowerment, Women Health creates awareness among girl students of their condition and their rights, and among boys a sensitivity towards problems of women, leading to a lessening of gender bias and patriarchal prejudices. All this leads to informed, balanced and responsible citizenship. CMRIT has MoU with an organization Enable India – striving for creating Disable friendly technologies. Our students are encouraged to identify problems and find solutions to facilitate the wellbeing of the

Divyangjan community. This has resulted in innumerable student projects such as Blind friendly sticks, Disabled friendly sensors, etc. This is promoting the Entrepreneurial skills of our students. Our students and faculty designed innovative face masks, Sanitizer sprayers, and distributed health workers which were appreciated by government authorities.

UHV training is included in the First-year Student Induction program. Students are sensitized by eminent personalities, academicians on Values and Ethics to be inculcated by budding engineers.

Visits to Old age homes, Blind associations, Orphan schools have been memorable occasions to become compassionate and express empathy to the deprived section of people. Many of our students have been of philanthropic activities. Interactions with local schools and colleges to conduct workshops for students and training programs for teachers allow our students to work with children and contribute to their learning experience. Science programs, language classes are conducted to strengthen the basics for school children. Unnat Bharat Abhiyan (UBA) scheme of the Government of India has been utilized by our faculty and students to set up Rural technologies. This has immense scope to promote innovations for rural masses and honing of research skills among the budding engineers.

It has been a holistic experience for our students in these years to actively interact with the local community to improve their standard of life.

File Description	Document
Paste link for additional information	View Document

3.4.2 Number of awards and recognitions received for extension activities from government/ government recognised bodies during the last five years

Response: 6

3.4.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
3	3	0	0	0

File Description	Document
Number of awards for extension activities in last 5 year	View Document

3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 175

3.4.3.1 Number of extension and outreached Programmes conducted in collaboration with industry,

community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
40	33	40	40	22

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	View Document

3.4.4 Average percentage of students participating in extension activities at 3.4.3. above during last five years**Response:** 50.38**3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
3530	2956	3220	1646	188

File Description	Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document

3.5 Collaboration**3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year****Response:** 125**3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year-wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
54	40	20	7	4

File Description	Document
Details of Collaborative activities with institutions/industries for research, Faculty exchange, Student exchange/ internship	View Document

3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the last five years

Response: 45

3.5.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
19	10	7	3	6

File Description	Document
e-Copies of the MoUs with institution/ industry/corporate houses	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

Response:

Situated in the very heart of South India's IT corridor, the CMRIT campus in Whitefield, Bangalore is centrally located, well connected, and easily accessible. Spread over 7.6 acres, the CMRIT campus is spacious and well laid out. Centralized fire alarm systems, CCTV surveillance, and RFID gates are some of the security measures undertaken.

The infrastructure of the CMR Institute of Technology (CMRIT) is world-class. Well-ventilated & spacious classrooms, state-of-the-art Computer labs, Mechanical labs, Civil and Electronics labs, digital library, transport facilities, hostel, sports stadium (indoor & outdoor), and other amenities make CMRIT the perfect academic setting within India's Silicon Valley.

The classrooms, staffrooms, and other infrastructure facilities are as per the norms prescribed by Visvesvaraya Technological University, (VTU) Belgavi.

Classroom: All classrooms are designed to provide a better learning experience. The 60-seat classroom gives each student an excellent view of the lecture as well as peers, thus making the class more interactive. All classrooms are bright, well ventilated, and equipped with an LCD projector with Wi-Fi access. All classrooms are spacious and well-ventilated to provide a holistic learning atmosphere to students. The classrooms incorporate the latest multimedia equipment to facilitate visual learning.

Seminar Halls:

The campus is equipped with state-of-the-artfully air-conditioned, audio-visual rooms that regularly host guest speakers and national seminars. The dedicated AV rooms are acoustically treated and equipped with top screen DVDs, can record proceedings, and deliver an immersive learning experience. Seminar halls are equipped with a video conference lecture system.

Computing facility/Laboratories:

Students have access to high-tech networked Computers. Electronics, Mechanical, and Civil Engineering labs are equipped with the latest hardware and software. Students have full access to networked printers to print the projects reports, courseware, and research material. With a 1:4 ratio for lab computers, students have access to dedicated projects and business simulation labs. Each lab has 2GB RAM, 17" TFT monitors connected to windows7, Linux servers, and SQL server 2000. All nodes have LCD projectors, scanners, printers, and other selected peripherals. Authorized versions of all software are available. The laboratories are customized as per the needs of individual departments. The labs have modern equipment for students to work on and stay abreast with the latest industry trends.

The available physical infrastructure is optimally utilized beyond regular college hours to conduct co-curricular activities, extracurricular activities, proctor meetings, placement training, seminars, workshops,

and conferences. Every department has dedicated lab Instructors and an adequate number of laboratories and classrooms as per Statutory norms.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.2 The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

Response:

The physical education department of CMRIT nurtures young creative thinkers by providing sufficient training to students. CMRIT offers good facilities for indoor and outdoor games like Cricket, Football, Volleyball, Basketball, Tennis, Kabaddi, Hockey, Handball, and Kho-Kho. The institute has a good outdoor stadium with a cinder track. The students will be able to watch sports events from the cafeteria complex that encompasses two covered Basketball courts, table tennis, volleyball, throw ball, and other events.

Recreational facilities like sports /games, both indoor and outdoor are available for the residents of the Hostel. Outdoor recreation facilities include a playground, basketball, table tennis & Volleyball court within the campus. In-door recreation games viz., carom board, chess, etc., are provided by the institution. Our students represent the university in different sports and have won awards at state and national levels as well.

To encourage sports, the talented sportspersons are provided with a host of facilities such as:

- Accommodation in hostels
- Extra Coaching for completion of syllabus for sportspersons
- Travel allowance, reimbursement, and other support
- Financial and academic support
- Participating students are provided exemptions from classes and assessments as per the UGC sports norms

Sports Scholarships are provided to:

- Students displaying exceptional talent in sports are eligible for scholarships under the Sports quota.
- The major objective of the scholarship is to provide incentives to sportspersons and award them such that they maintain sustained interest to participate and perform progressively.

The hi-tech gymnasium caters to the needs of the students and staff. A fully equipped gym with a qualified fitness instructor is located in the central student canteen building.

Cultural Activities: Important cultural activities in the college are:

CULTURA – It's an intercollegiate cultural, Technical, and Management fest. CMRIT Cultura is held in February last / March first week of every year. This fest sees the participation of more than 2000 students across the country. Exciting events such as Battle of Bands, Beat Boxing, and Quiz besides the usual competitions like western Dance, Fashion Show, etc. are organized to motivate and help students to build their personalities unleashing the best talent among them.

AURA - An interdepartmental contest. This is an institute event wherein students across different departments participate in diverse events. Department which secures the maximum points will be given an overall championship award.

Some of the cultural events get organized in the sophisticated auditorium Dwani. It offers wide opportunities to hold national and international conferences and extracurricular activities and it has been a platform for all our students to unleash their prowess.

SALIENT FEATURES – AUDITORIUM

- 700 seats
- Bose Sound
- Underfloor Air Conditioning System
- 60 ft. wide main stage & Two annex stages
- Indirect reflective lighting from Germany
- VIP & General lounges
- Professional stage lighting

Apart from cultural events, the other major activities carried out at the institute include Graduation day, Kannada Rajyotsava celebration, Founder's Day, and so on. The institute also has a well-being club, wherein different events related to yoga and the well-being of faculty and student are conducted.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 90

File Description	Document
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.4 Average percentage of expenditure, excluding salary for infrastructure augmentation during last five years(INR in Lakhs)

Response: 35.72

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
418.16	580.97	502.01	546.01	77.46

File Description	Document
Upload Details of budget allocation, excluding salary during the last five years (Data Template)	View Document
Upload audited utilization statements	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS)

Response:

CMRIT Central Library, at the heart of the Campus, provides an ideal environment for intellectual inquiry with its multiple Study Spaces, Research Assistance, and Reading, Learning, and Instructional Resources. The State-of-the-Art ICT facilities were established to provide much-needed services to support excellence in Teaching, Learning, Research, and Extension. The User-focused facilities and services provide seamless access to resources and evaluate Scholarly information to learn and create new Knowledge.

The CMRIT Central library spreads over the second floor of the administrative block plus two side wings with an area of 2400 sq.m. The library is designed in such a way it has natural light over the entire day and provides an ambiance for effective learning. The library can accommodate 200 users at a time. There are reading and learning resources, internet access through Wi-Fi, electrical plug-in facilities, etc. Further, Digital Learning Resources and Online access to major E-Journals and E-Books on Science and Technology, Management are available through VTU Consortia and Developing Library Network

(DELNET). KOHA, an Integrated Library Management Software package is used for Library operations and resource sharing among the CMR Group of Institutes Libraries. Institutional Repository (IR), is a digital repository of CMRIT Central Library that can be used by Faculty members. The library is well-equipped with Fire alarms, CCTV surveillance, and a secure RFID-based access gate. Qualified, experienced, and well-trained Library professionals serve the user community with excellence and provide assistance in meeting academic and research information needs.

The CMRIT central library has a comprehensive collection of books, national & international journals, educational CDs, and online database subscriptions that cover over **5661** full-text online journals & conference proceedings, **24348** e-books annual reports, and project reports. The library holds the resources in an organized, systematic, digitized way to fulfill the needs of users and promote knowledge sharing. The library makes use of advanced tracking software to reserve and source any book a student might need. Students can use digital library access. The library is open from 7.30 am to 10.30 pm on all regular days and up to midnight during examinations.

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation	
KOHA	Fully	19.11	2019 (From 2003 till 2018 Libsoft – Libra Automation	

File Description

Document

Upload any additional information

[View Document](#)

4.2.2 The institution has subscription for the following e-resources

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases
- 6.Remote access to e-resources

Response: A. Any 4 or more of the above

File Description

Document

Upload any additional information

[View Document](#)

Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership, Remote access to library resources, Web interface etc (Data Template)

[View Document](#)

4.2.3 Average annual expenditure for purchase of books/e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 31.72

4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
32.66	34.10	37.99	25.22	28.64

File Description	Document
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the last five years (Data Template)	View Document
Audited statements of accounts	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

Response: 11.6

4.2.4.1 Number of teachers and students using library per day over last one year

Response: 520

File Description	Document
Details of library usage by teachers and students	View Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

IT infrastructure

CMRIT campus networking is mainly operating with a firewall and star topology in a single network. The campus networking has been established with Gigabit/Megabit speed through fiber optical and CAT 6 structured cable for data nodes. Descriptions of all the network switches have been rack mounted such as core network, distribution switches, access switch, and resilient server connections in the server room. Our network has been protected by a firewall that includes Gateway level security and content/data filtering. This firewall supports multiple ISP in lease line connection. The institute has hosted a private library server to meet the computing requirements of the campus for students and faculties. The server room also

provides e-mail and web servers of the institution. The server room provides a 24/7 Internet facility to the college/hostels. CMRIT campus has Microsoft licensing agreement. The total number of computers on the network is 1333 from low-end to high-end systems. The number of Printers is 67. There are Licensed System Software, Licensed Application Software, and Open-source software. Auditorium and Seminar Halls are equipped with AV Solutions to support computer connectivity and internet access and are used for training teachers and students. CMRIT campus has a video surveillance system to protect assets and people. The Wi-Fi facilities are available on all floors.

Maintenance

All classrooms are provided with Wi-Fi and LCD facilities. Faculty halls are provided with LAN facilities. At the end of every semester, the foreman of the department prepares preventive maintenance of all labs and computer facilities and it's submitted for management. At the beginning of a semester, requirements are prepared at the department level concerning procurement and service for management approval. On approval, procurements/repairs/services are done based on the requirement. Thus institute keeps updating all facilities based on requirements.

Website Team

The institute has a dedicated website team wherein activities across all departments and cells/committees get captured and published. The website gives an overview of the activities of CMRIT and showcases the achievements of students and faculty members. The website communicates the vision and mission of the institute, information on management and leadership, infrastructure facilities, and faculty members. The website aids prospective students with all information concerning admission. The website is periodically updated with events held and any other highlights.

File Description	Document
Upload any additional information	View Document

4.3.2 Student - Computer ratio (Data for the latest completed academic year)

Response: 3:1

File Description	Document
Student – computer ratio	View Document

4.3.3 Bandwidth of internet connection in the Institution

Response: A. 750 MBPS

File Description	Document
Upload any additional Information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years(INR in Lakhs)

Response: 64.28

4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
364.31	749.97	906.48	901.77	870.72

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	View Document
Audited statements of accounts	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

The physical, academic, and support facilities of the institute can be categorized as follows:

Physical facilities:

- 1.Sports complex - The floodlit basketball, and volleyball courts have hosted VTU and JAM tournaments successfully.
- 2.Football/Hockey/Cricket ground - The large open ground serves as a mini football/cricket ground which is visible from all surrounding buildings.
- 3.Auditorium – The magnificent auditorium has been used for organizing cultural activities and different events.

The process for utilizing the various physical amenities at the institute is well-defined. The institute has a

designated campus manager to handle the various requirements. Requests for use of the sports complex, cricket ground, and auditoriums should be addressed to the campus manager, who will make allotments depending on availability. Outsiders can also use the facilities for a minimal fee, depending on their needs and availability. The facility is maintained on a semester-by-semester basis, and the sports director of the institute is in charge of it.

Academic facilities:

1. ICT-enabled Classrooms – ICT-enabled classrooms improve the efficiency of the teaching-learning process. Classrooms are equipped with Wi-Fi/LAN facilities. At the institute level, classrooms are assigned to departments for different semesters. Individual departments are responsible for its upkeep, and at the end of each semester, a preventative maintenance report is completed to determine the status of each classroom. Individual departments might submit any requirements for maintaining the same to the institute head before the start of a semester.
2. Seminar Halls – Seminar halls can be reserved in advance by any department. Booking requests should be sent in advance to the Institute head's office, and allocations are made depending on availability. Seminar rooms are also utilized for seminars, conferences, and weekend programs like the 'Executive MBA on Product Leadership.' Each seminar hall is assigned to a specific department, and it is the responsibility of that department to maintain it.
3. Library – The institute library is a wealth of information, and both students and teachers can use it to study and borrow books. The library also has periodicals, magazines, and journals in addition to textbooks. Students and teachers can use their institute identity cards to borrow books from the library for a set period. The chief librarian is in charge of managing the library's resources. At the end of every semester, the Chief Librarian and her team take care of library maintenance.
4. State of art laboratories and computer labs – Students work on mini-projects in the labs in addition to the usual curriculum. Apart from the curriculum, the institute's computer facilities are used to conduct other exams like the Common Entrance Test, GATE examination, recruitments in Police Department, and so on. A request for such examinations is filed to the Institute head, and allotments are made. The lab refinement committee (Department - LRC) investigates lab procurement at the department level. The institute head receives a preventive maintenance report
5. at the end of each semester. The department proposes any new purchases or service requests to the institution head at the start of the semester.
6. Enterprise Resource Planning (ERP): Curriculum delivery and teaching-learning approaches are monitored using a custom-designed Enterprise Resource Planning (ERP) system called Juno Campus. In addition to teaching and learning, the platform consolidates staff and student accomplishments and allows students to track their development. This facility is managed by a centralized ERP team, which comprises faculty from all departments. The Juno Team provides any necessary support or maintenance to ensure that it runs smoothly.
7. CoE facilities – There are 17 Centers of Excellence and a Maker Space at the Institute. Every center has a team of dedicated faculty and students who work towards realizing its vision and mission. The CoE head keeps track of the progress of various initiatives and searches for opportunities to collaborate with other institutes/organizations. Other institute faculty/students can use the CoE's centralized facilities with prior approval and payment of a modest charge via the 'Intern Admit Form. The details so captured are subject to the approval of the CoE head and RC chair. The center head is in charge of keeping the CoE in good working order.

Support facilities:

1. Vehicle parking – Institute has distinguished two-wheeler (2800 sq. m) and four-wheeler parking spaces (1500 sq. m) for both faculty and students. Apart from this, closed parking of 600 sq. m is also available for faculty.
2. Canteen, eatery, and stationery shops – Within the campus, there exists a canteen, juice center, Cafe Coffee day stationery shop, and so on. To initiate any such shop or eatery, a requirement is given to the institute head. As a result, a rental agreement is established to provide the service at a low cost to the campus's staff and students.
3. Hostel facilities – During the admissions process, students can apply for hostel accommodations. The candidate's preference and availability are taken into account while allocating rooms. On request, the hostel also provides a catering service for special events organized at the department/institute level. Any such requirements should be submitted to the Chief Warden with the Institute head's consent. The Chief Warden takes care of the health and safety of the students.
4. Water management – Institute has an RO facility across different floors of the different blocks of the institute such that treated water is available for both faculty and students. Towards the conservation of natural water, the institute has a rainwater harvesting unit and a bore well recharge system. The campus manager is responsible for water management.
5. Sewage Treatment Plant – Institute has a Sewage Treatment Plant and the treated water is used for gardening. The campus manager takes care of its upkeep.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years

Response: 37.87

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
1578	1685	2329	1522	1804

File Description

Document

upload self attested letter with the list of students sanctioned scholarship

[View Document](#)

Upload any additional information Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years (Data Template)

[View Document](#)

5.1.2 Average percentage of students benefitted by scholarships, freeships etc. provided by the institution / non- government agencies during the last five years

Response: 7.38

5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
279	550	279	290	336

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freeships institution / non- government agencies in last 5 years (Date Template)	View Document

5.1.3 Capacity building and skills enhancement initiatives taken by the institution include the following

1. Soft skills
2. Language and communication skills
3. Life skills (Yoga, physical fitness, health and hygiene)
4. ICT/computing skills

Response: A. All of the above

File Description	Document
Details of capability building and skills enhancement initiatives (Data Template)	View Document
Link to Institutional website	View Document

5.1.4 Average percentage of students benefitted by guidance for competitive examinations and career counselling offered by the Institution during the last five years

Response: 35.29

5.1.4.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
3592	1438	1416	800	708

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document
Any additional information	View Document

5.1.5 The Institution has a transparent mechanism for timely redressal of student grievances

including sexual harassment and ragging cases

- 1. Implementation of guidelines of statutory/regulatory bodies**
- 2. Organisation wide awareness and undertakings on policies with zero tolerance**
- 3. Mechanisms for submission of online/offline students' grievances**
- 4. Timely redressal of the grievances through appropriate committees**

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document

5.2 Student Progression**5.2.1 Average percentage of placement of outgoing students during the last five years**

Response: 66.06

5.2.1.1 Number of outgoing students placed year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
792	742	616	522	596

File Description	Document
Details of student placement during the last five years (Data Template)	View Document

5.2.2 Average percentage of students progressing to higher education during the last five years

Response: 22.51

5.2.2.1 Number of outgoing student progression to higher education during last five years

Response: 221

File Description	Document
Details of student progression to higher education (Data Template)	View Document
Any additional information	View Document

5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 55.27

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.)) year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
52	43	42	32	49

5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
160	87	69	55	65

File Description	Document
Number of students qualifying in state/ national/ international level examinations during the last five years (Data Template)	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.

Response: 254

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at

university/state/national / international level (award for a team event should be counted as one) year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
25	84	75	57	13

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national/international level during the last five year	View Document
e-copies of award letters and certificates	View Document

5.3.2 Institution facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities following duly established processes and norms (student council, students representation on various bodies)

Response:

At CMRIT, the students' council, student members in clubs, and college-level cells are actively participating in conduction of all academic activities, cultural, sports, and Extension activities in the academic year.

The College offers students Clubs to participate in a wide range of Co-Curricular, Extra-Curricular, Social, and Community Development Activities. Throughout the year numerous events are organized for the students to pursue their hobbies. The students participate in the feedback system. Student feedback is an important exercise while curriculum framing, and teaching-learning processes. Students conduct extension activities through NSS, NCC, Rotaract, Women Cell units, etc. The students are nominated to the Anti-ragging committee, Student Grievances Committee. Students form departmental clubs and arrange talks, workshops, training programs, Hackathons, and competitions from the person of eminence from the industry.

Student Council: This body does the planning and execution of annual events in the institution.

- 1.They organize Inter Collegiate State Level Techno-Cultural Fest CULTURA which is celebrated during the even semester every year. It is a 2day extravaganza with around 150 to 200 colleges participating across Karnataka with a footfall of about 8000.
- 2.Almost a week before CULTURA the council organizes Ethnic Day in the college enthralling the students with different entertainment activities and competitions such as Mr. and Ms. Ethnic.
3. As part of the pre-CULTURA council organizes a weeklong event called CUL-WEEK that is celebrated with multiple events which may include Wear Your Mood Monday, Twinning Tuesday, Formal Wednesday, Black and White Thursday, etc.
- 4.They organize Inter Collegiate State Level Sports Fest SPARDHA which is celebrated during the

even semester every year. It is a 2day fest with around 50 colleges participating across Karnataka with a footfall of about 1500.

- 5.They organize Inter-Departmental Cultural Fest AURA which is celebrated during the odd semester every year.
- 6.They organize Independence Day and Republic Day celebrations on campus every year.
- 7.They organize Diwali Nights celebrations in the college enthralling the students with different entertainment activities and competitions for faculties like Rangoli Competition etc.
- 8.They actively take part in organizing different Social Awareness Activities along with NSS CMRIT such as Marathons, Walkathons, and Workshops.
- 9.During the COVID-19 epidemic Student Council extended their support to the society by the manner of researching and validating COVID relief resources that including oxygen beds, ICU beds, ventilators, oxygen cylinders, concentrators, injections, etc., and sending this information across to those who reached out to them via their Instagram page and WhatsApp. They contacted oxygen vendors, the drug controller helpline, pharmaceutical distributors, hospitals, the BBMP helpline, COVID war rooms, political contacts, and other volunteer groups to get people the help they required.
- 10.Student council always are ready and extends their support in organizing or helping whenever the college plans any additional activities such as Startup Competitions, Technovation, Shristi Project Competition, VTU Sports Competitions
- 11.They organize cultural, technical, and sports auditions for the first-year students to identify and give a platform for the newly joined students to be part of the college clubs and sports teams.

5.3.3 Average number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions)

Response: 114

5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution participated year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
148	101	126	102	93

File Description	Document
Number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions (Data Template)	View Document

5.4 Alumni Engagement

5.4.1 There is a registered Alumni Association that contributes significantly to the development of

the institution through financial and/or other support services**Response:**

Yes, the institution has a registered Alumni Association which plays a vital role.

The Alumni Association helps in building a network of alumni and helps the institute to be in constant touch with the corporate world. The alumni meet once a year, help in conducting interactive sessions to motivate current students about employability in Indian industries, and also educational opportunities within India and abroad. They share their opinions on social networks, blogs, and forums. The alumni participate and share through seminars and panel discussions on the competencies they have gained during their course of professional work and provide valuable information to the institute in an attempt to improve the curriculum.

Contributions:

- Guest lectures / Webinar sessions
- Placement opportunities
- Internship opportunities
- Alumni meet
- Alumni Quarantine Stories
- Recognizing stories of contribution amidst COVID-19

1. Alumni meeting was organized every year on the second day of CULTURA. The event provides an opportunity for alumni to interact with the juniors and guide them in various aspects.
2. Alumni interacted with all fellow students to discuss the challenges and expectations of the industry and also served as alumni evaluators in judging the teams for Hackathons.
3. Served as alumni evaluator's in judging the teams for Hackathons.
4. Served as resource persons for various guest lectures, club activities, and workshops.
5. CMRIT Alumna Madhavi Shankar (2008 – 2012, Dept. of CSE) Co-Founder & CEO – Space Basic, one of the Top 60 women entrepreneurs from Women Transforming India 2018. NITI Aayog (National Institution for Transforming India) Tweets and appreciated our alumna Ms.Madhavi Shankar for featuring in **Forbes Asia 30 under 30**.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

5.4.2 Alumni contribution during the last five years (INR in lakhs)

Response: A. ? 5 Lakhs

File Description	Document
Upload any additional information	View Document

NAAC

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance of the institution is reflective of and in tune with the vision and mission of the institution

Response:

Established in 2000, the CMR Institute of Technology imparts high-quality education in engineering and management that helps students hone their analytical abilities and develops their critical thinking skills. CMRIT meets the rapidly growing need for technology professionals by nurturing young minds in an innovative learning environment that inculcates progressive values. With a superior infrastructure and experienced faculty, CMR Institute of Technology is the preferred destination for budding technocrats and managers who wish to shape their future.

Institute Vision: *To be a nationally acclaimed and globally recognized institute of engineering, technology, and management producing competent professionals with appropriate attributes to serve the cause of the nation and society at large*

Institute Mission:

M1: Create necessary infrastructure appropriate to the needs of programmes and activities of the institution.

M2: Attract and retain well-qualified faculty and supporting staff.

M3: Create and facilitate an ambiance for interdisciplinary engagement, leading to a healthy competition among students and staff in pursuit of excellence through life-long learning

M4: Develop and operate mutually-beneficial programmes partnering with industries, institutes, and individuals of national and international repute.

M5: Create mechanisms to understand societal needs and provide solutions for the betterment of society.

In alignment with the above vision and mission, CMRIT has instituted appropriate processes and practices to achieve best-in-class governance, leadership, and management. CMRIT has set up decision-making bodies such as Governing Council, Internal Quality Assurance Cell, Innovation & Entrepreneurship Cell, and Research Committee. The Governing Council has representation as per statute which includes faculty members, thereby giving them a voice in deliberations related to governance and strategic planning of the institute. All other institute-level bodies draw members across departments. We have Centers of Excellence that are generally multi-disciplinary/inter-disciplinary and cater to more than one department. Further, each Department has Department Advisory Committee, Research Committee, and other committees/cells to drive department-specific activities, may they be discipline-related, student-related, or staff-related. Further within the department, the teaching-learning process is operationalized in a collaborative manner where teachers get peer inputs from Knowledge Reviewers who focus on content and Process Reviewers who focus on pedagogy. Then there are societal issues, inter-personal issues, and work-environment-related issues which CMRIT addresses earnestly. To cater to this dimension, there are

committees for Women's Safety, Grievance Redressal, and Anti-Ragging. All these committees have the representation from the larger body of faculty chosen consciously and thoughtfully. The democratic spirit is ingrained in our student body as well by giving them representation in institute-level student council as well as to represent their own peers as class representatives.

To better understand social needs, we have designed outreach programs that take our teachers and students to rural communities. These programmes have resulted in the adoption of villages viz.: Marasandra village and Chokkanhalli. The objective of this initiative is to come up with solutions to day-to-day problems faced by the villagers as well as to expose them to innovative products and solutions they can leverage.

File Description	Document
Upload any additional information	View Document

6.1.2 The effective leadership is visible in various institutional practices such as decentralization and participative management

Response:

The institute believes in the practices of decentralization and participative management to realize its vision and mission. There is requisite participation by faculty members in statutory bodies' namely governing council. There is a high level of participation in Institute Level Committees, Cells, and Strategic Initiatives. There is a good degree of space provided to departments to pilot new initiatives. Processes and collaborations with related industries and institutions. This then leads to a cross-pollination of best practices across departments. In addition to department head roles, there are other leadership roles to lead and direct research committees, student affairs, institute innovation committees, and a variety of competency cells. Nearly 25% of CMRIT faculty members get an opportunity to contribute at the institute level.

Next, we discuss CMRIT Innovation and Entrepreneurship (I&E) Cell with a focus on decentralization and participative management.

The CMRIT I&E cell organizes various competitions and events throughout the year for encouraging students and staff to display their talent. It prepares the students to participate in national-level competitions such as Smart India Hackathon. The I&E cell consists of representation from all the departments of CMRIT. At the beginning of the academic year, a meeting of the cell is organized under the direction of the college principal and then there are periodic reviews throughout the year.

Structure of CMRIT I&E Cell:

I&E Cell is headed by the Chairperson who is chosen by the members of the cell after collective deliberations. All activities are monitored by the Chairperson and I&E Heads representing different departments. One of the members is chosen as the convener to plan the activities. The calendar of events is meticulously planned and prepared in advance by I&E cell members who ensure proper implementation of the planned events. Heads of the Department provide the required support to the I&E activities in their departments. They are responsible for overseeing the I&E activities in their departments in conjunction

with I&E heads.

These collective efforts have led to the institution of innovative policies to achieve the goals set out expeditiously. CMRIT formulated CMRIT IPR Policy 2020 followed by CMRIT Innovation and Start-up Policy-2021 in line with National Innovation and Startup Policy 2019. In addition to internal members, CMRIT has involved external experts in bodies such as the institute innovation council. A large number of experts from Government and Industry have shared their knowledge with CMRITians which has resulted in enormous progress in the filing of patent applications, entrepreneurial projects, and initiation of faculty-driven startup culture.

Outcome:

- Number and Different types of I&E and IPR activities Conducted: 140
- No. of student's & faculty ideas generated: 68
- No. of IPs generated, published, and granted: *Patent published:31, Granted Patent: 10, Granted Design Patent:11, Trade Mark: 02, Technology Transfer: 01*
- No. of Student & Faculty Start-ups/Ventures established: 18

I&E cell displays team spirit in organizing various events, many of which are collaboratively organized across departments. The knowledge regarding ideas, processes, and practices is shared across departments. In summary, the I&E Cell purposefully practices decentralization and participative management.

File Description	Document
Upload any additional information	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

The institution has developed a strategic plan grouped into various categories named “**CMRIT Initiatives for Excellence**”. The highlight of each category is explained below:

Graduation Outcome

Under this initiative, we focus on Graduation in the Minimum period (i.e., without a year back), quality placements, high median salary, entrepreneurship culture, and university ranks for the students.

Skills training and transformation

Under this initiative, we focus on various types of placement training on core technical, soft skills, languages, aptitude, etc. We issue scorecards at the college level based on different levels of examination. The final target of this initiative is that all our students should get very good placement.

Experiential Learning / Inculcate scientific temperament

Under this initiative, we focus on the participation of students in department-level mega projects, mini-projects, entrepreneurial projects, technology excellence activities by centers of excellence, internships, and inter-disciplinary activities.

Co-curricular Learning

Under this initiative, we encourage students to take part in MOOCs, paper presentations, expert talks, professional bodies' activities, student club activities, organizing social activities, and industry visits.

Pedagogy, Creativity, Participation

Under this initiative, we focus on the creative approach to pedagogy such as videos, flip classrooms, game-based learning, virtual labs, e-resources, and innovation hackathons/competitions. In addition, training sessions on entrepreneurship, innovation, and grants proposals are conducted for the benefit of students and faculty members.

Faculty Knowledge and skills

Under this initiative, we look for faculty contribution to quality research, consultancy, sponsorship projects, innovation, and entrepreneurship projects along with teaching. We also motivate faculty members to gain MOOC certification, attend FDPs, serve as resource persons at external events, deliver technical talks, and organize FDPs.

Processes and Perception

In this category, IQAC ensures the process and quality outcome, especially at the organization level as indicated by the number of university ranks, adoption of Outcome-based Education with improving Outcomes, and in general continuous improvement culture.

Organization Database and Activities

In this category, we focus on maintaining information on common organization-level events, student database, parent database, visitors, Alumni and events database, periodic dissemination of information through newsletters, faculty induction, and student induction programs.

We have implemented all the above initiatives and achieved very good results. Below we would like to highlight the strides we have made in Faculty Knowledge and Skills in particular research.

CMR Institute of Technology (CMRIT), as a matter of policy, requires that the faculty members maintain reasonable publication output every year. Thus, the number of publications from CMRIT has increased significantly, over the years. Further CMRIT insists that the faculty members publish their research work in journals/conference proceedings indexed by services such as Scopus, Web of Science for journals. This thrust towards high quality has given us good dividends. We have now over 92 publications in Q1 and Q2 journals and the publications over the past 5 years are summarized in the below table. This can positively impact the institute in NIRF ranking.

	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
Grants/	101 L	170 L	89 L	51 L	54 L
Consultancy					
Paper published	329	107	50	44	35
National/ International Conference					
Paper published	208	92	54	38	28
National/Internation al Journals					
Patent (Conventional & Design)	218+3 [^]	98+7 [^]	9+11 [^]	5	4
[^] Granted					

File Description	Document
Upload any additional information	View Document
strategic Plan and deployment documents on the website	View Document
Paste link for additional information	View Document

6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.

Response:

- CMRIT has a governing body in place wherein the members are drawn from distinguished cross-sections of the society. The annual budget is approved by the governing council.
- Various committees at institutional levels and departmental levels are responsible for planning and executing many operational procedures in the institution. Different committees have operational autonomy.
- Heads of the Department (HoD's) are accountable for the smooth conduction of the academic activities of the department. In turn, they delegate important academic activities to the respective faculty members, for which complete freedom is given to the Heads of the
- Departments, to take such decisions.
- Regular departmental meetings are conducted in which important aspects of the requirements of the departments such as equipment, laboratory materials, books, journals, and others are discussed
- HoD's are authorized to recruit competent faculty members for their department, subject to approval at the institute and the university level.

Functions of Governing Council:

1. Deciding on policies related to the fees and other charges payable by the students subject to guidelines fixed by the Government/University from time to time.
2. Accepting endowments, institute scholarships, fellowships, studentships, medals prizes, and certificates on the recommendation of the Academic Council.
3. Approving the starting of new programs of study with the approval of the University.
4. Laying down services conditions and emoluments and allowances for teaching and non-teaching staff in the college, in conformity with the University Statutes/ Ordinances / Regulations/ Rules/ Guidelines and other State Government Provisions.
5. Laying down the procedure for recruitment of teaching, non-teaching staff in conformity with the University Statutes / Ordinances / Regulations/ Rules/ Guidelines and other State Government Provisions.
6. Regulating and enforcing discipline among the members of the teaching and non-teaching staff by the Rules/ Procedures/ Guidelines laid down in this regard.
7. Investing funds belonging to the college in approved securities, as it shall, from time to time, think fit or towards the purchase of the immovable property.
8. Transferring or accepting the transfer of any movable or immovable property to the college.
9. Entertaining, adjudicating upon, and if thought fit, constituting a Committee to advise and/or recommend a method to redress the grievances of staff members of the college.
10. Delegating administrative, managerial, and financial powers to the principal and other functionaries in the College for its smooth functioning
11. Approving the Annual Budget of the college.
12. Performing such other functions & constitution of the Committee, as may be necessary and deemed fit for the proper development and fulfillment of the objectives for which the college was established.

File Description	Document
Paste link for additional information	View Document
Link to Organogram of the Institution webpage	View Document

6.2.3 Implementation of e-governance in areas of operation

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
ERP (Enterprise Resource Planning) Document	View Document
Details of implementation of e-governance in areas of operation, Administration etc	View Document
Any additional information	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff

Response:

- All eligible employees as per the statute are entitled to PF &ESI facility.
- Transport and mess facilities are made available to both teaching and non-teaching staff members at a nominal charge.
- Gymnasium & Sports facilities for all staff.
- Institute provides salary advances/interest-free loans
- Flexible working hours for all staff with a 1-hour window, subject to being available for scheduled activities. Additionally, Leave Work early option is provided to meet personal needs.
- Faculty can avail advance leave in case of emergency.
- Staff called for work on a holiday by the head of department/Institute will be provided compensatory-off of half day for working beyond three hours, and compensatory-off of one day for working beyond six hours.
- All teaching and non-teaching staff members are entitled to flexible Vacation and Casual Leaves that they can utilize any time during the academic/calendar year subject to applicable policies.
- Work from home option during a personal and family emergency on medical grounds.
- Faculty members who are pursuing Ph.D. will be provided one-day OOD to meet their external guide, once a month. These leaves are available only after the successful completion of Ph.D. coursework. The leave has to be supported by a signed letter from the guide with the date of the meeting
- The employee gets a concession on fees for their ward if enrolled at CMRIT.
- Women employees are entitled to avail of maternity leave.
- Free health check-up camps and COVID vaccinations were provided for free for all staff.
- Hostel accommodation based on specific needs.
- Financial literacy sessions are conducted frequently to support and educate all staff to achieve financial goals.
- Unique options for faculty members to contribute beyond teaching in the areas of Research, Consultancy, Project Grants, Innovation, and Entrepreneurship along with the execution of technical projects. There is a systematic process for faculty evaluation and recognizing and awarding faculty.
- The Institute promotes research culture by creating infrastructure to carry out research work and encouraging research facility utilization available on campus.
- Incentives of Rs.5000/- can be claimed by faculty members who publish papers in SCOPUS Q1 or

Q2 (Non-paid) Journals.

- Incentives of Rs.5000/- awarded to faculty members from CMRIT for the output over and above their assigned core activities.
- Award for faculties for their best practices in Teaching Learning.
- The institute sponsors the faculty members to attend workshops, conferences, seminars, etc.
- The institute motivates the non-teaching staff to attend skill development and training programs. It supports them to attend courses to improve their educational qualification.
- Institute organizes training programs on office automation, use of open-source software, etc.
- Motivation through counseling is also available for staff members to create a congenial working environment.

File Description	Document
Upload any additional information	View Document

6.3.2 Average percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 22.25

6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
104	75	93	50	6

File Description	Document
Upload any additional information	View Document
Details of teachers provided with financial support to attend conference, workshops etc during the last five years	View Document

6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years

Response: 43.2

6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
65	61	37	24	29

File Description	Document
Upload any additional information	View Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres)	View Document
Reports of Academic Staff College or similar centers	View Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 68.1

6.3.4.1 Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course year-wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
275	230	182	182	145

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View Document
Details of teachers attending professional development programmes during the last five years	View Document

6.3.5 Institutions Performance Appraisal System for teaching and non-teaching staff

Response:

Faculty self-appraisal covers the performance of faculties in the areas of teaching, research, and other administrative support. They are expected to achieve the targets for the sanction of yearly increments and

additional incentive increments (if any) based on the performance.

Faculty members from CMRIT have a choice in participating in the following core activities as part of their workload.

1. Teaching and Lab conduction (T)
2. Research Paper publication (R)
3. Consultancy (C)
4. Projects Grant (P)
5. Innovation (I)
6. Entrepreneurship (E)

Evaluation is done four times a year based on TRCPIE & other goals: July, Oct., Jan., April.

Weightage:

- TRCPIE: 60%
- Non-Core: 10%
- Knowledge Upgrade: 10%
- Support: 20% (Mentoring: 5%)

The weightage may change based on specific activities allotted to a staff.

Quarterly Evaluation of HoD/Head for the organization-level role will be done by the Principal. Department evaluation is also done once a year.

CMRIT offers 22 types of faculty awards based on their performance in various categories of CMRIT initiatives as mentioned below:

A. Category: Graduation outcome

? Graduation in Minimum Time Period

1. Faculty getting +15% better results than average of last three years
2. Mentors of students on the probable ineligible list

? Median salary

3. Faculty who provided significant support to achieve the target

? University Ranks

4. Mentor of student who can coach and motivate student
5. Subject teachers who put special effort

B. Category: Skills training and transformation

? Transformation Records

6. Mentors providing significant 'transformation' of their mentees

? Tie Your LACES training

7. Faculty putting special efforts into providing training

C. Category: Experiential learning

- CoE Mega Application

8. Faculty members for significant contribution and leadership

9. CoE with Best Mega Application

? Dept. Mega Project

10. Faculty members for significant contribution and leadership

11. Department with the best Mega Project

? Mini Projects

12. Faculty for significant support and guidance

? Winning national/international competitions

13. Faculty members for significant support and guidance

D. Category: Co-curricular learning

? MoU with industry and premier institute

14. Faculty for MoU on research, product, and joint-courses

? Student Club Activities

15. Faculty for significant contribution and leadership

E. Category: Pedagogy, Creativity, Participation

? Learning Experience

16. Faculty with the most effective Flip classroom implementation

17. Faculty with the most effective videos and e-resources utilization

? GATE coverage and assessment

18. Faculty for significant contribution based on students' feedback and teaching material/process

F. Category: Faculty knowledge and skills

? RCPIE

19. RCPIE Incentive as applicable under each category

? New innovative / Out-of-syllabus content/experiment

20. Faculty for significant contribution

G. Category: Processes and Perception, Organizational Databases and Activities

? Common Organization level events

21. Faculty for significant contribution and leadership for initiatives across the

Organization

? IQAC Progress and Compliance

22. Faculty for significant contribution and leadership

File Description	Document
Upload any additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

Internal audit:

The internal audit is performed on a half-yearly basis. The auditors verify all accounting transactions with underlying documents to validate the existence, accuracy, occurrence, valuation, classification, and completeness of the transactions recorded in the accounting system. Ledger scrutiny is performed to check if there are any deviations from the generally accepted accounting principles or internal policies. Objections, if any, would be brought to the notice of the Trustee, Director-Finance, Accounts, and the Accounts Manager. The audit objections will be resolved after mutual discussions and the submission of

sufficient clarifications during the audit itself.

External audit:

External auditors are Chartered Accountants appointed yearly as per the regulatory requirements. The external auditors conduct the audit by the Standards of Auditing issued by ICAI. The external auditors confirm that the generally accepted accounting principles are followed and the financials are prepared within the applicable financial reporting framework and as per statutory requirements. The audit team would verify and assess if there are any material misstatements due to error or fraud at the financial statement level and assertions level. All the external audits of the institute have concluded with the auditor giving an opinion that the financial statements give a true and fair view of the affairs of the institution. The yearly audit reports and financial statements are filed with the statutory authorities within the due dates. The last external audit was conducted for the year ended March 31, 2021.

The Institution receives Grants from various government and non-government organizations. The Institution obtains the services of an external auditor to prepare and submit the Utilization Certificate.

The mechanism for settling audit objections:

The Trustee, Director-Finance, Accounts, and the Accounts Manager carefully examine the results of the audit. All the objections would be resolved after mutual discussions with the auditors. Sufficient documents would be submitted to the auditors to clarify their queries within the specified timelines. The institution has not come across any major audit objection as of date.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

6.4.2 Funds / Grants received from non-government bodies, individuals, philanthropers during the last five years (not covered in Criterion III)

Response: 3241280

6.4.2.1 Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
200000	988580	515600	924000	613100

File Description	Document
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the last five years	View Document

6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

CMRIT has a transparent and well-planned resource mobilization policy focusing on achieving the goals of the institution ensuring accountability and transparency.

Mobilization of funds

The major sources of revenue are:

- Tuition Fees collected
- Charges for infrastructure utilization
- Project funding from various Government departments, such as DST, DRDO, CSIR, DBT, ICMR, etc.
- Organization of Conferences, FDP, symposiums, and workshops with sponsorships from AICTE, ATAL, and delegate fees.
- Cultura fund(the fund for organizing the annual cultural festival)
- Fee-based utilization of state-of-the-art equipment
- Surplus from Certificate courses
- Earnings out of Patents and Technology Transfer to start-ups and corporate.
- Consultancy
- Food stalls and art crafts during events
- Hackathon funds

During the preparation of the budget, inputs are obtained from IQAC, departments, library, IT, and sports committees After collecting quotations, the budget is revised based on the requirements and priorities of the College. The College prepares operational budgetary allocations for salaries, equipment, instruments, consumables, repairs and maintenance, Software license, the honorarium of Guest for Expert Lecture, Seminars, Workshops, and Conferences, library, electricity and water bills, stationery expenses, and other miscellaneous expenses. . Then the annual budget of the College is approved by Governing Council. Institute has established a mechanism for conducting Internal and External Financial audits every year to ensure Financial Compliance.

Optimal utilization of human resources

- Channelizing development with the necessary knowledge and skills to undertake a piece of research work and projects in any area of choice.
- Centers of Excellence (CoEs) are established in the college to promote opportunities to collaborate with other Institutes and Organizations.
- Implementation of ideas/solutions to real-world problems and demonstration of the same from time

to time.

- Experienced and dedicated teaching and non-teaching staff are serving as resource persons for various national and international events organized by Academia and Research Institutes.
- Faculty members are heading various committees and cells at CMRIT and are accountable for the development and implementation of respective Initiatives.

Optimal utilization of infrastructural resources

- Working hours of the library are extended during exams.
- Infrastructural resources are being used by government and private organizations to conduct online exams during weekends.
- Auditorium, Audio-Visual Halls, Playground, and multi-purpose hall are commonly used by the CMR Group of Institutions
- Mechanism to monitor the utilization of infrastructural resources.

File Description	Document
Upload any additional information	View Document

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Response:

The internal Quality Assurance Cell (IQAC) at CMRIT has ensured enhancement and coordination among various activities of the institution and institutionalizes all good practices.

Contributions made by IQAC:

- The feedback process was refined by analyzing the feedback of more than 90% and less than 70% along with the root cause and plan of action.
- Created CO-PO attainment and gap analysis template and every faculty member computes attainment and measures gaps if any for their subject after the results.
- Created an additional calendar called IQAC calendar which captures events related only to staff members but not directly related to students.
- Created student transformation record book which contains the complete database of a student for mentoring students.
- Conducted various Quality enhancement programs for students and teachers. Received from TEQIP Rs.3lakhs and organized FDP on OBE and NBA Accreditation.
- Academic Audits: Academic audits were conducted two times at the start of the semester and after completion.
- Identification of Knowledge and Process Reviewers: Knowledge and Process reviewers were identified to ensure effectiveness in the teaching-learning process.
- Lesson Plan: To normalize formats, the Lesson Plan template was structured uniformly focusing on

instruction methodologies and teaching aids.

- Participation in NIRF, ARIIA, NBA, AISHE, and various other quality audits recognized by the state, national and international agencies.
- Implementation of Teaching-learning process Touch Your TOES (TYT)

The two best practices are discussed below:

1. Academic Audit of the Departments/Cells/Committee

- IQAC does an audit two times a semester for all departments. The first audit is before the commencement of the semester to check the plan and preparation to meet the targets as per initiatives in the semester. The second audit is done after the last working day of the semester to check the status of the targets achieved, gaps, best practices by the department, etc. Similarly, an IQAC audit happens once at the end of every semester for all organization-level heads for their respective cells/committees. At the beginning of the semester, along with the academic calendar, IQAC shares a separate IQAC calendar that provides a timeline of tasks completion. IQAC shares the audit checklist with all the heads and the audit will be done accordingly.
- The report of the audit gets analyzed and discussed in the HoDs meeting for discussion and suggestions. IQAC also identifies the gaps which should be filled by making proper action plans.

2. Quality Enhancement Programmes by IQAC

- IQAC has adopted a practice to provide quality enhancement programs for both students and faculty. Programs are engaged by internal as well as external experts. IQAC regularly provides training on defining/revising CO (wherever applicable), CO-PO mapping, PO-PSO mapping, setting the attainment target, calculation of attainment, gap analysis, etc. IQAC conducts a faculty induction program at the beginning of every semester to highlight the complete process and expectations from CMRITians. Conducted CO-PO certification test for all faculties and prepared a handbook for the same. Also periodically conducts the same for the new faculties.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities (For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

Response:

IQAC periodically reviews the teaching-learning process, structures & methodologies of operations, and learning outcomes as mentioned below.

- Academic Calendar
- Lesson Plan
- Identification of Knowledge and Process Reviewers
- Feedback process
- Outcome-Based Approach
- Various Quality Initiatives

Examples of institutional reviews for its teaching-learning process, structures & methodologies of operations, and learning outcomes

1. Department audits

- IQAC has framed the procedures and formatted documents to conduct interdepartmental audits twice a semester one at the beginning and the other at the end to evaluate the delivery effectiveness of teaching-learning structures & methodologies.
- IQAC conducts audits for the institute-level committees/cells once a semester.
- A department-wise schedule, a checklist, and a list of panel members are shared with the department heads before the audit.
- Self-audit is done by the respective department head to ensure effectiveness in the process.
- Based on the self-audit comments the audit is conducted as per the schedule and panel members' comments were recorded in the Checklist report template.
- Reports are collected from panel members, consolidated department wise and submitted to the Principal and Vice-Principal. Based on the audit gaps department heads prepare necessary actions to close the gaps and IQAC ensures the closure of all the gaps by all the departments and committees.

2. Focus on Outcome Based Approach:

- In tune with the outcome-based approach, the question papers for the internal class tests are prepared with a specific pattern that will enable the assessment of the attainment of enlisted Course Outcomes (COs) for each course.
- The POs, PSOs, and COs attainment is measured every session, for low attained courses, proper action is planned and efforts are made to improve the attainments if required beyond curriculum content and activities planned and implemented.
- IQAC regularly provides training on defining/revising CO (wherever applicable), CO-PO mapping, PO-PSO mapping, setting the attainment target, calculation of attainment, gap analysis, etc. IQAC conducts a faculty induction program at the beginning of every semester to highlight the complete process and expectations from CMRITians. Conducts CO-PO certification tests for all faculties and prepared a handbook for the same. Also periodically conducts the same for the new faculties.

File Description	Document
Paste link for additional information	View Document

6.5.3 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
2. Collaborative quality initiatives with other institution(s)
3. Participation in NIRF
4. any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

Response: A. All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Upload details of Quality assurance initiatives of the institution	View Document
Upload any additional information	View Document
Paste web link of Annual reports of Institution	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

At CMRIT, Bengaluru we have a strong ethical work culture that is based on inclusivity. It observes the highest ethical standards in all its activities. Equal opportunities are provided to all individuals irrespective of gender, race, caste, color, creed, language, religion, political or other opinions, national or social origin, property, birth, or another status. Its unique work culture, healthy traditions, and ethos have led to the enrolment of 32.5% girl students and 53.8% women staff. Safety, security, and well-being, along with gender equity and a friendly working atmosphere are the issues of prime concern.

Safety and Security

- Well-trained and vigilant security guards stationed across the campus entries and exits.
- Rotational duty by all faculty members to maintain discipline.
- Strict implementation of anti-ragging and anti-smoking practices within the campus.
- Awareness campaigns on women's safety and gender sensitivity through workshops.
- Separate hostels for girls with a dedicated warden.
- The institute is the preferred destination of parents for the education of their female wards as evidenced by the Stakeholder Feedback.

Counseling

- Formal and informal avenues for counseling girl students and staff for academic and other issues.
- Counseling is available for all students.
- Grievance Redressal Committees for staff and students.
- Gender sensitization lectures.

Common Rooms

In most of the departments, common rooms have been allocated for girl students and women staff, which also facilitate meetings and discussions.

Daycare Center for Young Children

Nearby daycare centers are listed and shared with women staff. The college supports the company's diversity drives for girl students.

Other Measures and Initiatives

Women cell at CMRIT is working towards women empowerment. Women cell makes constant efforts to empower women faculty and students. Women's cell also organizes several awareness programs like menstrual health and hygiene sessions, the need for positivity in pandemic times, and work-life balance

sessions. Sanitary napkin dispensers are installed for the benefit of women staff and girl students. Women's cell celebrates International women's day every year.

CMRIT's Anti-Sexual Harassment Committee conducts talks and interactive sessions by eminent psychologists, corporate trainers, and POSH trainers with students and faculty, every semester.

MoU was signed on 19th Feb 2020 between CMR Institute of Technology and Society of Women Engineers (SWE) to become an International college affiliate. Encouragement of girl students and promotion of engineering as a field of study for women is a necessary and fundamental function of the organization.

Community Outreach

As part of NSS activities, free multi-specialty medical camps are organized fortnightly in neighboring villages, which help transform rural women by building awareness about health, hygiene, and the importance of child education and provide a launching pad to induct them into vocational skilling.

File Description	Document
Link for specific facilities provided for women in terms of: a. Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document
Link for annual gender sensitization action plan	View Document

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

1. Solar energy
2. Biogas plant
3. Wheeling to the Grid
4. Sensor-based energy conservation
5. Use of LED bulbs/ power efficient equipment

Response: A. 4 or All of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management

- **Liquid waste management**
- **Biomedical waste management**
- **E-waste management**
- **Waste recycling system**
- **Hazardous chemicals and radioactive waste management**

Response:

The institution aspires to create a **Clean & Green Campus**. To ensure this, CMRIT has a waste Management Policy.

The following are the eco-friendly measures/initiatives taken by the institute toward having a green campus:

- **Solid Waste Management**

The waste generated by all sorts of routine activities carried out in the institute includes paper, plastics, glass, metals, foods, kitchen and canteen waste, etc. There are 246 dustbins in the premises with volume of 7 litres (small) and more than 60 litres (large).

Department of Civil Engineering has taken the initiative to convert food waste from the college hostel and canteen to manure by drum composting. This has been carried out as a part of the Mega project of the department and the compost so formed has been used as an organic fertilizer for the garden. For a wet waste of 150 kg, approximately 20 kg of fertilizer was generated.

The administrative supervisor in each block ensures that the waste from each floor is collected at designated time intervals. The housekeeping workers on each floor collect, clean, segregate and store the waste in the dustbins (green and blue) provided in each floor.

The floor dustbins are emptied into movable containers/dustbins provided for each block and are taken to the dumping yard by an authorized vendor who collects the waste from the designated place, segregates them, recycles them, and disposes them at the landfills authorized by the government.

- **Liquid Waste Management**

Liquid waste generated in the college is of two types:

- Sewage waste
- Laboratory, laundry, and cafeteria effluent waste

The above wastes are treated through Sewage Treatment Plants (STPs) at CMRIT campus. The treated water is used for gardening and flushing toilets.

- **Biomedical Waste Management**

Since there is no hospital, health care centers, blood banks, or biotechnological research center in the institute, no biomedical waste is generated.

- **E-Waste Management**

Currently, CMRIT has an agreement with M.K.K E-Waste Enterprise for E-waste collection. Awareness sessions and collection drives are initiated through Ensyde at CMRIT in association with Saahas, an Environmental Enterprise. E-waste management activities involve the collection of flip flops, memory chips, motherboards, compact discs, cartridges, etc. generated by electronic equipment such as computers, phones, printers, fax and photocopy machines, etc. Maker space at CMRIT has also organized e-waste collection drives (old computer part, CPU & printer part) to do mini-projects.

- **Waste Recycling System**

1. Single-sided printed papers are reused for taking printouts.
2. Unused sheets of bluebooks and assignment books are reused for making notes.
3. The single-use plastic bottles thrown as waste in the canteen are collected and are used to store liquid wash and disinfectants.
4. Laser printer cartridges are refilled.
5. Any remaining unused waste is considered dry waste and disposed of safely through collection mechanisms.

- **Hazardous Chemicals and Radioactive Waste Management**

Institute does not have or produce hazardous chemicals and radioactive waste.

File Description	Document
Any other relevant information	View Document
Link for Relevant documents like agreements/MoUs with Government and other approved agencies	View Document

7.1.4 Water conservation facilities available in the Institution:

1. Rain water harvesting
2. Borewell /Open well recharge
3. Construction of tanks and bunds
4. Waste water recycling
5. Maintenance of water bodies and distribution system in the campus

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.5 Green campus initiatives include:

- 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**

Response: A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

- 1.Green audit**
- 2.Energy audit**
- 3.Environment audit**
- 4.Clean and green campus recognitions / awards**
- 5.Beyond the campus environmental promotion activities**

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

- 1.Built environment with ramps/lifts for easy access to classrooms.**
- 2.Divyangjan friendly washrooms**
- 3.Signage including tactile path, lights, display boards and signposts**
- 4.Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment**
- 5.Provision for enquiry and information : Human assistance, reader, scribe, soft copies of**

reading material, screen reading**Response:** A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).**Response:**

The institution has been taking several efforts and initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socio-economic, and other diversities. By celebrating many National and International Days, Events, and Festivals like Ayudha Pooja, Women's day, Ganesh Chaturthi, Yoga Day, and Holi the institution aims at bringing tolerance and harmony among the students and staff, and other stakeholders. Our stakeholders hail from diverse, socio-economic backgrounds, states, regions, localities, and linguistic and cultural backgrounds. Institute has several practices to ensure the inclusion of diverse groups to create a sense of representation and belongingness in them.

CULTURA is an annual inter-collegiate techno-cultural fest celebrated by students from diverse regions and cultures. It provides a platform for students to demonstrate their latent talents and cultural ethos through participation in cultural competitions or events like performing Arts, Theatrics, Dance, and Music.

CMRIT has actively participated in Ek Bharat Shrestha Bharat to boost awareness of India, its tradition, heritage, and culture at the local, regional, and national levels among the student body who typically hails from all over India.

Kannada club celebrates Karnataka Rajyotsava during which staff and students participate in a group dance, ethnic shows, literary and singing competitions representing various cultures, cuisine, clothing folklore, art, and cultural forms of Karnataka.

To build a strong connection between students and the faculty and to create holistic awareness of Universal Human Values, formed a Universal Human value cell as part of the AICTE initiative. To train our faculty on Human values, we encourage all our faculty to undergo a Five-day AICTE workshop on Universal Human Values (UHV). As envisaged by AICTE, teachers integrate their training experience in a three-week Induction program organized for First-year students. During the Induction Program, students would get initial exposure to human values. Faculty members trained in the Universal Human Values program should help students in the right development of their world-view, mindset, perspective, and values.

File Description	Document
Link for supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document
Link for any other relevant information	View Document

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

Constitution of India subject is mandated by VTU at the Under Graduate level across all engineering disciplines to create awareness and sensitize the students and employees about constitutional obligations. To build a strong connection between students and the faculty and to create holistic awareness of Universal Human Values, formed a Universal Human value cell as part of the AICTE initiative. NSS organizes various events and activities throughout the year to sensitize students about constitutional rights and obligations. Some of the events conducted are mentioned below.

SL NO	PROGRAMMES	PLACES	DATE	VOL NO	DETAILS OF WORK
1.	NSS Golden Jubli Celebration	CMRIT CAMPUS	03/10/2018	100	Celebration
2.	Village Adoption Survey	Marasandra	12/10/2018	7	Survey of the problems facing the village
3.	Blood Donation Camp	CMRIT CAMPUS	26/10/2018	304	Spread the importance of blood donation among young leaders
4.	Village adoption Ceremony and Social survey of the village	Marasandra	27/10/2018	130	Village adoption house to see the problems of villagers
5.	MoU Signed between Marasandra Village and CMRIT College	Marasandra	27/10/2018	130	Village adoption
6.	Run for Unity	AECS LAYOUT BENGALURU	31/10/2018	60	Spread the message of unity
7.	Pinkathon	AECS LAYOUT BENGALURU	08/03/2019	150	Creating awareness about cancer among the street
8.	Free Eye Checkup Camp	CMRIT CAMPUS	08/04/2019	125	Creating awareness about eye checkup among the faculty
9.	Sapling plantation drive	CMR University	14-08-2019	55	-
10.	Village Beautification Drive	Bhavapura, Dasarahalli, Nelavagilu, Ettakodi, Jagadenahalli, Lekkasandra	20/09/2019 22/09/2019	-152	-
11.	Debate on account of Gandhi	CMRIT CAMPUS	30/09/2019	15	-

	Jayanthi				
12.	Quiz on account of Gandhi Jayanthi	CMRIT CAMPUS	30/09/2019	47	-
13.	Theme painting on account of Gandhi Jayanthi	CMRIT CAMPUS	30/09/2019	14	-
14.	Special Camp	Chokkanahalli	1-02-2020-07-02-2020	54	-
15.	E-waste awareness session	CMRIT	23 Dec 2020	38	
16.	Village visit	UBA	16.12.2020	11	
17.	National Youth Day	CMRIT	27th October 2020	135	
18.	NSS Day celebration	CMRIT	24/09/2020	20	
19.	National Unity day	CMRIT	31/10/2020	115	
20.	National Voters Day	CMRIT	25/01/2021	25	
21.	UBA project deployment report	UBA	04.09.2020	11	
22.	Plant sapling	CMRIT	05/06/2021-10/06/2021	65	
23.	Covid Vaccination Drive	CMRIT	30/06/2021-09/07/2021	600	
24.	world environment day	CMRIT	05/06/2021	65	

File Description	Document
Link for details of activities that inculcate values necessary to render students in to responsible citizens	View Document

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 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**

Response: A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting number of programmes organized reports on the various programs etc in support of the claims	View Document
Code of ethics policy document	View Document
Any other relevant information	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

Institution Organizes National and International commemorative days to create awareness among all the stakeholders about the noble ideals and ideologies behind them. Our students are on a mission towards a better India by breaking the boundaries of religion and caste. Thoughts of great Indian personalities sowed into the young minds through the exhibitions and programs conducted these days. The institution practices a pluralist approach towards all religious functions and encourages the students and faculty to showcase the same. Every year our institute organizes national festivals and birth anniversaries of great Indian personalities. Staff and students get to know the importance of national integrity in the country in general and their role in it in particular.

- 26th January Republic Day
- 15th August Independence day
- 5th September (Dr. Sarvepalli RadhaKrishnan Birth Anniversary)
- 2nd October Mahatma Gandhi Birth Anniversary
- 15th September Engineers day (Birth Anniversary of Sir Visvesvaraya)
- International Yoga Day
- Samskruthi Kannada Sangha' organized Kannada Rajyotsava
- International Women's day
- Ethnic Day
- World Health Day
- Constitution day
- Ganesha Pooja
- Aayudha Pooja
- Ambedkar Jayanti
- Sadbhavana Day Celebration
- Vigilance Day
- National Unity Day
- National Voters Day
- World CSR Day – Feb 2nd
- World Entrepreneurs Day – August 21st
- National Mentoring Day – Oct 27th

File Description	Document
Link for any other relevant information	View Document
Link for Geotagged photographs of some of the events	View Document

7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Response:

Best Practice 1: Tie Your LACES(TYL) Training

Part-I: Abstract

Tie Your LACES (TYL) program focuses on the development of professional competency in students. TYL focuses on Language, Aptitude, Core domain, Experiential learning and Soft skills, along with programming skills and industry-relevant technologies. Conduction of Hackathons help to instill competitive spirit in students. TYL training is provided right from the first year. Continuous evaluation of the skills is done and a TYL scorecard is tracked for each student by their mentor. In addition to the TYL aptitude & soft skills organized to students in their pre-final year, training programs to hone their programming skills are also conducted in the summer break. In the first week, fundamentals of programming is taught (L2), followed by a week of programming language courses (L3) such as Java, C++ and Python for all students interested in taking up IT jobs. After L2 & L3 training, students are encouraged to undergo self-driven programming language proficiency training courses (L4) in the language of their choice, followed by Advanced Topics (L5) training such as Full Stack Development, Cloud Computing, Machine Learning. After every training, programming skills assessment tests (L2, L3 & L4) are conducted to ensure that students are ready for placement drives of software jobs.

Part-II: Detailed Report

Introduction

Tie Your LACES (TYL) is a program meant to improve the employability of students when they go for placement drives in their final year. It helps students in their holistic development required for corporate jobs or for any career option they choose.

TYL training and activities develop students in skills of 'L A C E S' that represent 'L' for Language, 'A' for Aptitude, 'C' for Core, 'E' for Experiential learning, and 'S' for Soft Skills. TYL skill development activities are conducted through all the years of students' coursework. TYL activities are designed, planned, and being executed for all semesters of all batches and all degree programs namely BE, MCA, MBA, and M.Tech.

Every TYL skill level development concludes with an assessment test. Students must be successful in the assessment to proceed to the next level of skill development. Further, students must pass all assessment

tests to gain eligibility for placement drives from college. The TYL process supports both quick and slow learners with remedial classes, mentorship, and career counselling.

TYL program is planned and conducted for all courses and in all semesters. All students are advised to take complete benefit of the TYL programs to earn their 'dream job' with a 'high salary package'.

Focused Area

All TYL topics follow a certain naming convention. For example, in 'P2-Python', the first character 'P' represents Programming, '2' represents the Level of the course and the remaining characters give details of the topic.

- All TYL topics are categorized into: - Lx for Language skills, Ax for Aptitude skills, Cx for Core domain skills, Px for Programming skills, Sx for Soft skills, Tx for Tools skills, and Bx for Business Skills. Lx, Ax, Cx, Px, and Sx are applicable to BE, MCA, and M.Tech courses, whereas Bx and Tx apply to the MBA program.
- All TYL skills are developed in students from the first year to the final year in phases. For example, TYL A1 Aptitude is covered in the first year of BE, whereas TYL A2 & A3 Aptitude training is planned in the 5th & 6th semesters of BE. Similarly, Px topics are covered with TYL P1-Basics in 1st year of BE, TYL P2-Python and P2-Advance in BE, and TYL P3, P4, P5 training are planned in 3rd year. TYL program is designed in such a way that skill levels go up as students progress in their coursework.

Approach to the Problem:

TYL TRAININGS DONE

1. One week of TYL A3 Aptitude (Quantitative, Reasoning, and Verbal) and TYL S3 Soft Skills Trainings for all pre-final year BE and pre-final year MCA students.
2. One week of TYL A2 Aptitude (Quantitative, reasoning, and Verbal) and TYL S2 Soft Skills Trainings for all pre-final year MBA and pre-final year M.Tech students.
3. TYL A1 Aptitude (Quantitative and Reasoning) training for all 1st-year Chemistry Cycle students as part of even semester timetable.
4. TYL S1 Soft Skills (Getting out of fear and Resume writing) training for all 1st year Physics Cycle students as part of even semester timetable.
5. TYL P2-Advanced Computing Concepts training for all 2nd-year 4th semester BE students.
6. TYL P5- Advanced Technologies (Cloud Computing, Full Stack Development, Machine Learning, and Big Data Analytics) for all 3rd-year 6th semester BE students.
7. TYL B2-Business Domain skills and TYL T2&T3-Data Analytics using Excel for 1st-year 2nd semester MBA students.

Implementation

Organized a series of Tie Your LACES (TYL) 24hrs Online Hackathons for CMRIT students as mentioned below.

2020-21: Even Sem: Theme of the Hackathon: “Digital Life after COVID-19 Pandemic”

1. Organized TYL Online Hackathon – JAVA from 7th to 8th July 2021.
2. Organized TYL Online Hackathon – Python from 17th to 18th July 2021.
3. Organized TYL Online Hackathon – C++ from 2nd to 3rd July 2021.
4. Organized TYL Online Hackathon – BDA/FSD/CC/ML from 22nd to 23rd July 2021.

2020-21: Odd Sem: Theme of the Hackathon: “Digital startups post Pandemic”

1. Organized TYL Online Hackathon – Python from 28th to 29th Nov 2020.
2. Organized TYL Online Hackathon – JAVA from 21st to 22nd Nov 2020.
3. Organized TYL Online Hackathon – Big Data Analytics/Cloud Services/Full Stack Development/Machine Learning using Python on 2nd to 3rd Dec 2020.
4. Organized TYL Online Hackathon – C++ from 13th to 14th Nov 2020.

2019-20: Theme of the Hackathon: “Response to COVID-19”.

1. Organized TYL Hackathon on 20th Oct 2019 in C++ which is open to all students. A total of 08 teams have registered and 6 teams have participated in the hackathon.
2. Organized TYL Hackathon on 26th Oct 2019 in JAVA which is open to all students of CMRIT. A total of 26 teams have registered and 24 teams have participated in the Hackathon
3. Organized TYL Hackathon on 4th Nov 2019 in Python which is open to all students of CMRIT. A total of 27 teams have registered and participated in the Hackathon
4. Organized TYL Hackathon on Big Data Analytics / Cloud Services / Full Stack Development / ML using Python on Nov 11th, 2019. A total of 15 teams have registered and 13 teams have participated in the Hackathon
5. Organized TYL Hackathon on 27th April 2020 in C++ which is open to all students
6. TYL Hackathon on “COVID-19 IDENTIFICATION USING X-RAY/CT SCAN IMAGES USING CNN” organized on 16th May 2020. A total of 10 teams had registered and participated in the hackathon.

2018-19:

1. Organized “TYL Hackathon on R Programming / Embedded with IOT / Auto CAD” on Feb 16th, 2019.

2. Organized “TYL Hackathon on Python Programming” on Feb 24th, 2019.

5. Conclusion

To enhance the employability of CMRIT students, multiple training on aptitude, soft skills, programming, and core skills were organized through our Tie-your-LACES program. These training programs are helping students to scale higher-order thresholds and expectations set by the companies visiting us for campus placements as mentioned below.

Year	#Students Placed	Max Salary
2021-22	625 (As on 4th April 2022)	25 LPA
2020-21	792	23.5 LPA
2019-20	742	22 LPA
2018-19	616	18 LPA
2017-18	522	18 LPA
2016-17	596	12 LPA

Best Practice-2: Innovation and Entrepreneurship (I&E)

CMRIT has an Innovation & Entrepreneurship (I&E) Cell in every department. The I&E cell targets to create an ecosystem for student entrepreneurs which includes ethics, morals, values, funding, start-up support, mentoring, development of emotional intelligence, academic mentoring, field touch, social consciousness, environmental impact, etc.

The key features include:

- Design thinking workshop for all students across departments.
- Patent drafting and filing workshops
- Start-Up workshops for students.
- Students participate in National level hackathons like SMART INDIA HACKATHON, NATIONAL INNOVATION CONTEST, DRUG DISCOVERY, TOYCATHON ETC.
- Mentor students to get involved in innovative projects and hone their entrepreneurial skills.
- Motivate and mentor students to become future Innovators and Entrepreneurs

The responsibilities of the coordinator to create a positive culture for startups are:

- Driving startups and all kinds of projects in the specific area
- Providing support to other projects which need support in the specific area
- Creating new projects
- Collecting ideas / Looking out for real problems in the area
- Encourage multi-disciplinary technical activities
- Larger involvement of faculty and students
- Creating awareness from time to time on the area
- Looking for external collaboration industry or premier institutes
- Winning awards at state/national/international level in specific areas
- Monthly tracking and updates

CMRIT, one of the most forwarding thinking and innovative educational institutions, is proud to start an incubation center to enable its students to get first-hand experience in entrepreneurship, promote innovation-driven activities at the institute, and provide a comprehensive and integrated range of support including space, mentoring, training programs, networking and an array of other benefits.

Just as one cannot imagine a college today without a library or a place for physical activity, we believe that an incubation center is equally essential in today's competitive and fast-changing world. Through the incubation center, students gain hands-on experience in innovation and entrepreneurship while being nurtured and encouraged by faculty, management, and industry experts.

The CMRIT Incubation Center, along with the CMRIT MakerSpace, aims to be the hub of innovative and high-impact ventures in social, educational, commercial, and other domains. It hopes to bring forth a revolution in how and what students learn and achieve while in college.

Structure of CMRIT I&E Cell:

I&E Cell is headed by the chairperson who is chosen by the members of the cell after collective deliberations. All activities are monitored by the chairperson and I&E Heads representing different departments. One of the members is chosen as the convener to plan the activities. The calendar of events is meticulously planned and prepared in advance by I&E cell members who ensure proper implementation of the planned events. Heads of the Department provide the required support to the I&E activities in their departments. They are responsible for overseeing the I&E activities in their departments in conjunction with I&E heads.

These collective efforts have led to the institution of innovative policies to achieve the goals set out expeditiously. CMRIT formulated CMRIT IPR Policy 2020 followed by CMRIT Innovation and Start-up Policy-2021 in line with National Innovation and Startup Policy 2019. In addition to internal members, CMRIT has involved external experts in bodies such as the institute innovation council. A large number of experts from Government and Industry have shared their knowledge with CMRITians which has resulted in enormous progress in the filing of patent applications, entrepreneurial projects, and initiation of faculty-driven startup culture.

Outcome:

- Number and different types of I&E and IPR activities Conducted: 140
- No. of student's & faculty ideas generated: 68
- No. of IPs generated, published, and granted:

Patent published: 31

Granted Patent: 10

Granted Design: 11

Trade Mark: 02

Technology Transfer: 01

- No. of Student & Faculty Start-ups/Ventures established: 17
- Details are available in NAAC template 6.1.2.

The I&E cell displays team spirit in organizing various events, many of which are collaboratively organized across departments. The knowledge regarding ideas, processes, and practices is shared across departments. In summary, the I&E Cell purposefully practices decentralization and participative management.

Highlight selected start-ups established by students/faculties with mention of founder/co-founder name. The details are summarized in the table below.

Sr. No.	Name of the Venture/Startup/ SME Unit Established with the Support of HEI	Name of the Founder	Name of the Co-Founder
1	AnHestia	Swathi	Nithesh Kumar Reddy
2	PureAthera	Shalini K V	Sanjay Kashyap
3	Nun Selene	Swethashree	Vidyashree
4	Ele Phoebe	Chethan S	T Avinash Reddy
5	Love Rhea	Ramesha G N	NA
6	CuteApate	Preethi N	NA
7	Din Harmania	Venketesh Murthy	Chandrappa M
8	Q2 Demeter	Sharmila R	NA
9	Mew Thetis	Anand Raja C	NA
10	The Iris	Srinivas S M	Anindita Gosh
11	AnAstrae Innovative Solution	Pranav Bhat	NA
12	Arms Minerva	Ms. Amrutha C K	Mr. Rahul Sanjay Mahen
13	Carlo Stea	Mr. Navneeth kumar	Mr. Prince Vergiies
14	CO3 Structural Systems	Mr. Gowtham Reddy	Mr. Mohsin Ali Kha
15	DS9 Elements and Structure	Mr. Sharvan Kumar	Mr. Dharshan Reddy
16	ZENS	Ms. N. Zain Ahamad	Mr. Nitish Srujan
17	Space Tech Orbital Pvt Ltd	Mr. Ashutosh Srivatsav	NA
18	Tech Force	Mr. Velraj Kumar	NA

- To focus on the National Innovation Contest, we have submitted 53 ideas initially. Out of 53, only 21 ideas are converted into Proof of Concepts. All 21 have been reviewed by internal committee members. After the evaluation 14 PoC is submitted to the IIC portal and Five PoCs are shortlisted by zonal level nomination. From that, one PoC got selected for the finals; Team Leader: Mr. Akilesh Bellad, Department of EEE, and it was guided by Prof. Sumit Mohanty, Internal Innovation Ambassador Dr. V. Agalya, and the external Innovation Ambassador Prof. N.M. Jothi Swaroopan. To be ready to take part in different innovation contests, CMRIT regularly maintains a repository of project ideas. Out of the potential 53 ideas compiled, 21 ideas was brought to the level of Proof of Concepts (PoC). The latter was scrutinized by the internal review committee members to evaluate the feasibility and viability of the ideas. Thereafter, 14 PoCs was submitted to the IIC portal. At the zonal level evaluation, five PoCs were shortlisted out of which one PoC got selected to the finals.

Team Leader: Mr. Akilesh Bellad, Department of EEE; Guide: Prof. Sumit Mohanty; Internal Innovation Ambassador: Dr. V. Agalya; External Innovation Ambassador: Prof. N.M. Jothi Swaroopan.

- In the intercollegiate competition event organized by the Federation of Karnataka Chambers of Commerce and Industry (FKCCI) **Manthan 2021**, CMRIT participated in the competition by submitting 26 ideas. The event attracted a total of around 700 project ideas from across Karnataka state. The jury shortlisted 197 teams for the quarter-finals, out of which 21 ideas are from CMRIT. All the shortlisted teams are moved to the semi-finals and 6 teams of CMRIT are short-listed for the finals.
- CMR Institute of Technology organized an internal hackathon as a forerunner to SMART INDIA HACKATHON (SIH) on the 14th January 2020 in its campus. A total of 18 teams participated. 10 projects were of software and 8 were of hardware domain. 5 teams from software and 2 teams from hardware domain were shortlisted for the next round. Winners of the internal SIH participated in the SIH 2020. Three teams from CMRIT were selected for the grand finale of the Online Smart India Hackathon 2020. The team **Import Brain** with the project title “A positive psychology game to promote objectives of Beti Bachao and Beti Padao” received the Jury Special Mention in the finale.
- **TECHNOVATION**: CMRIT organized an intercollegiate event on 27th September 2019 to attract ideas and showcase talent spanning different facets of technological innovation. The theme was “Artificial Intelligent-Based Applications for the Betterment of the Society”. The outcome was several student innovations by way of ideation and conceptualization of novel technology-based processes and products for the betterment of society, and having high social relevance. Adjudicators of the event were industrial personnel, founders of AI start up companies, and innovators from NGOs engaged in societal projects. The event, and the ideas generated therefrom were highly appreciated by both students and the adjudicators.

The AI Application Themes are: Telecommunication, Biochemistry, Mechatronics, Healthcare, Visualization, Transportation, Agriculture, Energy, Mobile, Web and Cloud Solutions, Defence, Manufacturing, Nano Computing, Finance, and Retails.

File Description	Document
Link for Best practices in the Institutional web site	View Document

7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

Faculty members from CMRIT have a choice in participating in the following core activities as part of their workload.

- Teaching and Lab conduction
- Research Paper publication

- c) Consultancy
- d) Funded Projects
- e) Innovation
- f) Entrepreneurship

Activities b) to f) would henceforth be termed as RCPIE activities. Furthermore, each faculty can choose the amount of contribution, in the step of 25%, under each of the above heads. For instance, a faculty can opt for 50% teaching, 25% in Research Paper Publication, and 25% consultancy. The total contribution should add up to 100%.

The targets for 100% workload for each RCPIE activity would be fixed annually and the targets for each faculty would be computed proportionally to the percentage of contribution he/she has opted for per activity.

Following are the expectations from a faculty member with 'one' core unit of commitment to each of the below-mentioned RCPIE activities:

SN		
1		
2	Consultancy projects (C)	3 Consultancy sub_unitc
3	Innovation-Patents (I)	3 Patent sub_unitsd
4	Entrepreneurship /Start-ups (E)	3 Entrepreneurship sub-unite

*a - One Research Paper sub-unit is equivalent to one paper accepted.

*b - One Project Grant sub-unit is equivalent to Rs. 5 lakhs received by CMRIT from a research grant or five research proposals of Rs. 5 lakh each submitted to granting agencies. The weightage for proposals other than the research proposal is given in Note #4 below.

*c - One Consultancy sub-unit is equivalent to Rs. 50K received

*d - One Innovation sub-unit is equivalent to Rs. 25K received as revenue from the patent(s) or one patent filed.

*e - One Entrepreneurship sub-unit is equivalent to Rs. 50K received as revenue from the start-up(s) or one start-up initiated.

Notes:

1. Faculty must get each RCPIE deliverable approved by DRC and RC before submission, for quality and economic viability in addition to fulfilling other conditions in the RC norms, for it to be considered for contribution.
2. For the faculty opting for the RP core unit, the contribution for research Paper and project grant would be interchangeable i.e. interchange between one sub-unit of research paper and one sub-unit of Project Grant is permitted.
3. For each deliverable/artifact, an ID is issued by RC. Faculty should quote this RC ID in all future communication regarding the deliverables.
4. STTP, FDP, and MODROB proposals will have a weightage of 0.1, while UBA, MSME, and GI proposals will have a weightage of 0.3. The weights will be applied to the amount of the proposal.

Examples:

1. UBA proposals of Rs.5 lakhs will be considered as Rs. 1.5 lakhs for core load calculations. $\text{Rs. } 5 \text{ lakhs} \times 0.3 = \text{Rs. } 1.5 \text{ lakhs}$.
2. MODROB proposal of Rs.20 lakhs will be considered as Rs.2 lakhs for core load calculations. $\text{Rs. } 20 \text{ lakhs} \times 0.1 = \text{Rs. } 2 \text{ lakhs}$.

The CMR Institute of Technology (CMRIT) has introduced the policy of publications by the faculty members in premier publication indexing services such as Scopus, Web of Science for journals, and IEEE, Springer for Conferences. This policy has proved to be a significant inflection point in the quality journey of the institute as far as research outcomes are concerned. The number of publications over the last 5 years has increased significantly.

	2020-2021	2019-2020	2018-2019	2017-2018	2016-2017
Grants/ Consultancy	101 L	170 L	89 L	51 L	54 L
Paper published National/ International Conference	329	107	50	44	35
Paper published National/ International Journals	208	92	54	38	28
Patent (Conventional & Design)	218+3[^]	98+7[^]	9+11[^]	5	4
[^] Granted					

We have over 92 publications in Q1 and Q2 journals and the publications over the past 5 years are summarized in the below table. This has the impact to elevate our institute in NIRF ranking

No	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
Total	29	17	12	10	18	6
Q1	9	1	2	2	13	1

Q2	20	16	10	8	5	5
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NAAC

5. CONCLUSION

Additional Information :

CMRIT takes particular care to recruit best-in-class faculty members. Many members of our faculty are educated at the premier institutes in India and abroad and enrich the quality of education on offer here. Over the years, the CMRIT students have secured top ranks in the university exams, the best placement offers, and admission to prestigious universities in India and abroad. Further CMRIT has set up 17 Centers of Excellence in emerging technologies, the most recent being the Centre of Excellence (CoE) in Drone Technology. The CoEs are utilized for competency building through training and certification, projects of interest to the industry as well as allied research work. Of late many start-ups have shown interest to collaborate with CMRIT in areas such as Machine Learning, Natural Language Processing, Cybersecurity, Robotics, and many other areas.

CMRIT has set up a Makerspace facility with equipment such as 3D Printers, Laser Cutters, and CNC routers. This is used to train students and enable them to experiment with their designs.

CMRIT has embraced the mentoring philosophy wholeheartedly. Every student is assigned a mentor who constantly keeps in touch with the student and stands by the student in the hour of need. There is a well-developed process to capture student information during the academic stint of students in Student Transformation Record (STR) booklets.

CMRIT has several student clubs dealing in music, art, photography, theater, and technical clubs. Additionally learning foreign languages are added attractions. There is excellent sports infrastructure with facilities for sports such as football, cricket, and basketball. There is also a student council that voices the collective opinion of students directly to higher authorities.

It is difficult for any educational institution to keep pace with changing skill requirements of students. Considering this, CMRIT designed a flagship program called TYL(Tie Your LACES) to develop students' Language, Aptitude, Core Technical, Experiential, and Soft Skills. The TYL initiative transforms students into professionals by improving their employability. The program is offered in a planned manner over many semesters. This we consider a unique offering of CMRIT.

Concluding Remarks :

CMRIT has established a strong track record in imparting high-quality education in Engineering and Management. Over the years CMRIT has met the rapidly growing need for technology professionals by nurturing young minds in an innovative and progressive learning environment, where the focus is on honing the analytical abilities and critical thinking skills of students. There is continued effort underway at CMRIT to realize founder Sri Chikka Muniyappa Reddy's dream of making high-quality education accessible to a large number of students. Towards this end, CMRIT is committed to promoting technical education which in turn can act as a catalyst for the growth and development of the country and society at large. With world-class infrastructure and experienced faculty, CMR Institute of Technology is the preferred destination for would-be technocrats and managers who wish to shape the future of a nation.