



SELF STUDY REPORT

FOR

3rd CYCLE OF ACCREDITATION

DR. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY

**DR. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY,
UDUMALAI ROAD, POLLACHI**

642003

www.mcet.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Dr. Mahalingam College of Engineering and Technology (MCET), Pollachi is a self-financing, co-educational engineering college, established in 1998 to commemorate the 75th birth year of Padmabhusan. Arutchelvar. Dr. N. Mahalingam. He is a renowned educationalist, industrialist, philanthropist and crusader for social causes. MCET is a part of Sakthi Groups which excels and stands tall in various verticals. It is affiliated to Anna University and has been conferred Autonomous status by UGC in 2011. MCET offers 10 B.E./B.Tech. Programmes, 6 ME programmes and 7 Research programmes. The National Board of Accreditation (NBA) has accredited 7 B.E programmes under the Tier-I category. Besides academic excellence, the institution focuses on research and provides great emphasis on a complete transformation of students by persuading various co-curricular and extra-curricular activities. An envisioned linkage with industries through 18 Centres of Excellence in the campus makes a great impact on the know-how of recent technologies. The institution accolades with various appreciations like one among the top 7% in Tamil Nadu released by Anna University, Chennai, 37th rank among 100 private institutions in India as released by data quest survey, and secured "Performer" band in ARIIA – 2021 by Ministry of Education. UGC selected MCET as a mentor institution for guiding nearby institutions for NAAC accreditation through the UGC-PARAMARSH scheme, with a financial aid of Rs.30 lakhs.

The institution has received grants of 207.78 lakhs and 1.24 crore in consultancy from different agencies for the past five years via research funding, addendum recently around 2 crore fund has been bagged through two projects.

NSS (1 aided & 1 self-financing) and NCC (Army & Air Wing) units in the institution stand exemplary in canopying student cadetship, leadership and social consciousness.

The lush green campus located on National Highway 83 has a locational advantage. MCET endures its journey towards excellence via updating its facilities, systems and policies and framed its mission and vision.

Vision

"We develop a globally competitive workforce and entrepreneurs."

The accomplishment of vision needs voluntary self-assessments and benchmarking with the best institutions nationally and globally.

Mission

Dr. Mahalingam College of Engineering and Technology, Pollachi endeavors to impart high quality, competency based technical education in Engineering and Technology to the younger generation with the required skills and abilities to face the challenging needs of the industry around the globe. This institution is also striving hard to attain a unique status in the international level by means of infrastructure, state-of-the-art computer facilities and techniques.

Implementation of the mission mandates benchmarking with best practices and address the contemporary issues related to industry and society.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Implementation of Choice Based Credit System (CBCS) & OBE.
- Industry Driven Curriculum with cutting edge & specific domains Elective courses to meet the requirement of the industry.
- Launching of new programs meeting the industry requirements.
- Functioning of good academic practices mandatory in Industry Attachment Program, Internship, Industrial visit, One Credit Courses(OCC), Professional Skills (PS) courses, Value-Added Courses(VAC), and Club activities.
- Mandate to complete two one-credit courses before completing the UG programme.
- Highly qualified, supportive and proactive management with a defined organogram holding 63 years of Educational service.
- 7 Departments has been recognized as research centers by Anna University.
- Quality Research Publications, Patents, and consultancy activities with incentives and Student Start-ups.
- Best-resourced academic library facility with an array of world-class collections, online accessibility to e-resources, study spaces, digitization, and preservation in 1475 sq.m.
- All eligible UG programmes NBA Accredited under Washington Accord.
- In housed industry powered 18 Centres of excellence offers skill based training program
- Four commercial ventures inside the campus
- Providing institutional scholarship for merit cum means students.
- Opportunities to develop talents and skills of individual student through 30+ clubs, Associations, and chapters
- Strong industry partnerships and Memorandum of Understanding (MoUs) to provide value added training, internship opportunities and project work.
- Certified Cambridge Assessment Centre
- Progressive infrastructure facilities and learning resources for teaching, learning, research, sports, students, recreation and accommodation, etc with 24x7 wifi facility
- Catering nutritious and hygienic food with a modular kitchen for hostellers and guests
- Instituted welfare measures for students and staff.
- Participative student council - Students Guild of Service (SGS) with financial support from management.
- Student engagement in academic and administrative activities.
- Dynamic Career Planning and Guidance (CPG) cell to equip students to accomplish their professional career, higher studies and scope for learning multiple languages.
- Maintaining good gender equity and community linkage via clubs, associations, and summer camps.
- Implementation of good practices – Ban of single-use plastics, book donation, helmet and licensed student entries, green campus, well connected with a public and strong reputation on quality and discipline, Drug and alcohol-free campus, zero records in anti-ragging.
- Knowledge sharing, project, placement, and internship are facilitated by Alumni.
- Student talent pool development training is provided with industry experts to improvise analytical skills and sort industrial problems.
- IQAC benchmarks the academic and administrative activities of the institution.

- Established community linkages through Sakthi-Providing Urban Amenities in Rural Area (Sakthi-PURA), MCET-Unnat Bharat Abhiyan, Saansad Adarsh Gram Yojana, NSS, NCC, Youth Red Cross (YRC), and Red Ribbon Club (RRC) clubs.

Institutional Weakness

- The institution may have a limited representation of students from diverse backgrounds, leading to a less inclusive learning environment.
- The institution is struggling to retain talented faculty members due to competitive job market conditions.
- Students belong to rural background prefer to go for placements rather than higher studies
- Inadequate admission in PG programmes
- Attracting high CTC for core departments.
- The institution is struggle for getting research funding from non-government agencies, for doing research projects.

Institutional Opportunity

- Possibility to align curriculum with National Skill Qualification Framework (NSQF)
- Exploring inter-disciplinary and multi-disciplinary courses in curriculum on-par with National Education Policy (NEP) 2020
- Integration of emerging technologies and tools in to the curriculum such as virtual reality.
- Potential partnerships with industry leaders for collaborative research projects and internships through centres of Excellence.
- Solve community / societal problems and issues especially in rural and urban areas using technology.
- Mentoring of other budding institutions in the region
- Digitizing the campus through infrastructure augmentation
- Collaborating with other Technical and life science institutions, both locally and internationally, can create opportunities for knowledge sharing and joint research initiatives

The institution can increase the partnerships with international universities, facilitating more student and faculty exchanges, joint research projects, and global exposure.

Institutional Challenge

- Implementation of courses related to Gender equity, sensitivity, auditing: addressing in syllabus
- Conjunction with the alumni to tap the unharnessed potentialities for student progression and inculcating employability skills.
- Ensuring effective utilization of hard copy resources in the library by students.
- Motivating students to make use of the available sports and yoga facilities.
- Persuade students to participate in international co-curricular and extracurricular events
- Aligning institution strategy to the dynamic education scenario
- Allotting time for various student activities addressing environmental & social cause
- After COVID-19, behavioral changes among students have become a bottleneck.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The process of curriculum development is carried out through the Board of Studies, Faculty, and Academic Council and follows the guidelines of statutory bodies like UGC and AICTE. The institution has full-fledged autonomy to revise the curriculum and syllabus. It has been revised during the last five years by implementing required amendments in the regulations. During the process of curriculum design and revision, central and state government objectives on higher education, national and regional policies, diversified and emergent global needs, developments in technology, cross-cutting issues, environment consciousness, and gender equity and sensitization with an inclusive approach are given due consideration. Interdisciplinary subjects are introduced and Information and Communication Technology (ICT) is integrated with the curriculum by introducing subjects like Computer Programming for all UG courses. Structured feedback on curriculum is obtained from stakeholders and experts to strengthen academics and holistic development of the students. A wide range of elective and open elective courses are available under each program. The curriculum of every program offers a combination of core courses, elective courses, skill enhancement courses, and choice-based open elective courses. The institution has adopted a Choice Based Credit System since 2014-15. The institution has taken initiatives to adopt Outcome Based Education approach. Well-defined Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs) are significant features of curricula. During the last five years, around 80% of students enrolled in different value-added courses. Certificate courses, value-added courses, and add-on courses imparting multi-skills are designed to enhance employability and also provide experiential learning.

Teaching-learning and Evaluation

The educational system at MCET has implemented Outcome Based Education (OBE) across all programmes to enhance the Teaching-Learning process in order to develop skills and gain knowledge of the learners with effect from 2011 after attaining Autonomous status. The academic activities in the institution cater to equity in the differential learning needs of the students. The learning levels are assessed based on their academic, co-curricular, and extra-curricular activities. Advanced learners and slow learners are identified based on their performances from the Continuous Comprehensive Evaluation Test. Special coaching classes are arranged for slow learners for their academic improvement. Advanced learners are encouraged to take up fast-track courses and NPTEL courses. Apart from this, centers of excellence have been established collaborating with leading companies inside the campus to provide an opportunity for students to gain knowledge and skills in emerging areas. Leading industry experts share their knowledge with the students during industry conclaves. Conclaves also feature young entrepreneurs to promote entrepreneurship and alumni sharing their success stories. The institution takes necessary steps continuously to evolve student-centric methods such as experiential learning, participative learning, and problem-solving methodologies to gain knowledge and skills in emerging areas. Students are encouraged to take up industrial projects during their final year of study. ICT-enabled tools are used for the effective teaching-learning process. A well-defined assessment and evaluation system is in place to monitor the performance of the students with the aid of software tool. The program outcomes and program-specific outcomes are disseminated to all the stakeholders and displayed at appropriate places in the institutions. The course outcomes, program outcomes, and program-specific outcomes are measured through Direct and In-direct methods. Based on the outcome attained, appropriate action will be taken to strengthen the teaching learning process.

Research, Innovations and Extension

By providing a dynamic higher education ecosystem with a focus on research, innovation, and technology development, the college seeks to promote research excellence and serve society at large. The institution's research and innovation efforts are being coordinated by the research and development cell under the direction of the research advisory committee in order to support faculty and student research. The college has approved incentives of around Rs. 18 lakhs to faculty for paper publications, granted patents, external-funded projects, and online certifications over the previous five years. Additionally, the Management has allocated around Rs. 18 lakhs as a SEED grant to support and encourage innovative, multidisciplinary research. About 40 research projects with a total of Rs. 207.78 lakhs were approved for the institute during the course of the last five years as part of encouraging research activities. 64 faculty members completed their Ph.D.s from our research centres in the past five years. The faculty published around 617 articles in different refereed indexed journals. In the last five years, our teachers and students have submitted and published 62 patents, and five patents have been awarded. Consultancy activities have brought in close to Rs. 124.07 Lakhs as income, and the policy for revenue sharing in consulting has been set at 60:40. A total of Rs. 281.65 Lakhs was spent on developing facilities, training teachers, and training staff members. For advanced applied research, the institution has 40 Memorandums of Understanding with industries. The NCC, NSS, and other society-focused clubs at the institute have organized 123 events to create an awareness of social responsibility among teachers and students.

Infrastructure and Learning Resources

The institution has 68 classrooms with Liquid Crystal Display (LCD) screens and wireless fidelity/Local Area Network (Wi-Fi/LAN) connectivity, along with 8 air-conditioned seminar halls equipped with ICT facilities. Classrooms are well-designed for comfort and functionality. Laboratories have modern and well-equipped for experiments and research. The college has 18 Centers of Excellence in collaboration with industries to enhance the skill for students. The central library offers a wide range of resources in various subjects, including Engineering, Technology, Science, and Humanities. High-speed internet (300Mbps) is provided by Reliance JIO ISP. The college has a transport department managing 41 vehicles and on-campus facilities like a dispensary, bank, book depot, cafeterias, and post office.

Excellent sports facilities are available, including an indoor stadium, outdoor fields, and courts for basketball, volleyball, tennis, badminton, and cricket ground. Hostels are separate for men and women, accommodating 1122 and 600 students respectively. Rooms are well-furnished, and amenities like fans, tube lights, and cupboards are provided. Hostel facilities include a modern kitchen, dining hall, internet browsing, library access, medical facilities, laundry services, hairdressing, canteen, and Xerox center. Central Library has a collection of 65181 books, 202 international journals, & 637 online national and international journals. The hostel administration is overseen by the Warden, with resident proctors available for guidance and counseling.

Student Support and Progression

The institution fosters a great learning environment and supports learners to accomplish holistic development with continuous assistance and monitoring. It renders staunch support and guidance to obtain financial aid from the government and non-government scholarships to all eligible students. Every year on average, 54% of students receive a scholarship. The institution offers **Arutchelvar Vidya Sakthi Scholarship (AVS) and Yuvasakthi Scholarship** to meritorious and promising students from economically challenged families. All students are covered under the **Accident Insurance policy**, also group insurance covers up to 4.5 lakhs in case

of parent death. **Students Guild of Services (SGS)**, a student body, functions on the premises to maintain a firm rapport with management and students. Management allocates Rs.23 lakhs every year to execute SGS activities. 30 plus clubs/forums/ associations and student chapters' function to kindle students to exercise their innate skills. Department association operates for students to augment their technical and organizational skills through organizing events, interactions, and hands-on training with alumni, and industry experts. Professional and Life Skills are incorporated in the curriculum from Semester I to VI for the holistic progress of students to enhance hard and soft skills. Cambridge Assessment Centre functioning in the campus offers two international certification courses Business English Certificate & Lingua Skill courses for registered students. Students gain the prospect to learn other languages like Japanese, Hindi, and German inside the campus. Aptitude and Soft skill courses are offered from semester II as a preamble for students' support in the placement. Students' grievances are obtained through online mechanisms, and basic/preventive measures are executed to curb ragging and sexual harassment. The institution provides career guidance on higher studies, competitive exams, and placements to the students through internal and external experts. It assists in providing avenues for placement opportunities. Institution persuades students to involve in sports and extracurricular activities. On average, 33 events are organized every year. Alumni association makes a substantial contribution to the progression of alma mater by contributing their experienced skills in various activities, committees, and statutory bodies.

Governance, Leadership and Management

MCET is governed by effective leadership with the vision of providing technical education for the upliftment of the rural community. Various committees comprising all stakeholders work towards the fulfilment of the vision. Decentralization and Participative management are ensured by divesting responsibilities both at the Institution as well as Department levels. Student Guild of Service (SGS) is a student body that interfaces between the Students and Management and is empowered to plan and organize College events. Strategic Plan 2017-22 has served as the roadmap for the Institution's growth and focuses on eight thrust areas for achieving academic excellence. The Institution has well-defined policies for recruitment, career advancement, and performance appraisal. E-governance strategies have been implemented in various domains such as Administration, Finance and Accounts, Student Admission and Support as well as Examinations. MCET is committed to the welfare of the staff as is evident through various welfare measures such as Staff Family Benefit Fund, Employees Co-op Thrift & Credit Society, Gratuity scheme, etc. The institution periodically organizes professional development programmes for the benefit of staff members. The institution implements effective budgeting practices for ensuring optimal utilization of financial resources and also conducts internal and external financial audits regularly. The Internal Quality Assurance Cell (IQAC) aims at continuous quality improvement for achieving academic excellence and effective administration by conducting periodic reviews and external audits. IQAC plays a pivotal role in proposing, reviewing, and sustaining new initiatives for quality enhancement.

Institutional Values and Best Practices

Equity, Transparency, Creativity, Team Work, Environment Sustainability, Staff Development, and Women in Development are the core values of the institution which intrinsically drive all the processes and activities. Women Empowerment cell, Prevention of Sexual Harassment (POSH) cell, and Yuvashakthi forums persistently work towards gender equity, through awareness programmes, facilitation, celebration, and motivation for the achievements of female students and faculty members. The institution consistently has taken green initiatives, such as opting for alternate sources of energy through solar power plants and bio-gas plant,

banning single-use plastic in cafeterias, college buildings, and hostels, RO water outlets to avoid the use of plastic bottles, Battery operated car for transportation within the campus, landscapes with grass, bushes, oxygen-producing trees such as Areca, coconut, Neem tree, Tamarind tree, Ficus, Bamboo, Arjun tree, Mango tree and Pongame tree. Energy conservation measures are done through the use of LED bulbs/power-efficient equipment and sensor-based lights and taps. Solid waste management, Liquid waste management, and E-waste management systems are in place to mitigate environmental pollution. 24 buildings in the campus have rainwater collection units and the collected water is channeled into the storage well.

The institute ensures Divyangjan friendliness by providing a barrier-free environment with ramps, washrooms, lifts, wheelchairs, display boards, and assistive facilities such as an accessible website, screen-reading software, and a scribe. The NSS and NCC wings of the college engage with the youth of the nearby villages and voluntarily serve society.

To accommodate diverse needs arising due to cultural, linguistic, communal, and socioeconomic differences the institute follows healthy practices such as admitting various reserved category students, providing Arutchelvar VidyaSakthi Scholarship, and celebrating several national festivals. Professional skill courses and activities of various clubs instill values, rights, responsibilities, and duties of Indian citizens among students and staff members.

Two of the best practices followed by the institution are Industry Institute Interaction through Cooperation, Collaboration, and Cocreation for Engagement, Efficiency and Effectiveness and Professional Skills courses that are offered with the objective of enabling the students to imbibe all those skills that are needed to be successful in their professional and personal life.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	DR. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY
Address	Dr. Mahalingam College Of Engineering And Technology, Udumalai Road, Pollachi
City	COIMBATORE
State	Tamil Nadu
Pin	642003
Website	www.mcet.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	P. Govindasamy	04259-236030	9842304203	04259-236070	principal@drmcet.ac.in
IQAC / CIQA coordinator	B. Kannapiran	04259-2306040	9443545160	04259-237755	iqac@drmcet.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, Prior to the Grant of	05-06-1998

'Autonomy'	
Date of grant of 'Autonomy' to the College by UGC	23-03-2011

University to which the college is affiliated

State	University name	Document
Tamil Nadu	Anna University	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	20-08-2009	View Document
12B of UGC	04-01-2013	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	03-07-2022	12	AICTE approved
AICTE	View Document	03-07-2022	12	AICTE approved
AICTE	View Document	03-07-2022	12	AICTE approved
AICTE	View Document	03-07-2022	12	AICTE approved

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	Dr. Mahalingam College Of Engineering And Technology, Udumalai Road, Pollachi	Rural	44.66	82899.18

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Co course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Mechanical Engineering	48	HSc or Equivalent	English	120	86
UG	BE,Electronics And Communication Engineering	48	HSc or Equivalent	English	121	121
UG	BE,Computer Science And Engineering	48	HSc or Equivalent	English	121	121
UG	BE,Computer Science And Engineering	48	HSc or Equivalent	English	60	60
UG	BE,Computer Science And Engineering	48	HSc or Equivalent	English	60	57
UG	BTech,Information Technology	48	HSc or Equivalent	English	125	125
UG	BE,Electrical And Electronics Engineering	48	HSc or Equivalent	English	120	106

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UG	BE,Automobile Engineering	48	HSc or Equivalent	English	60	31
UG	BE,Civil Engineering	48	HSc or Equivalent	English	60	28
UG	BTech,Artificial Intelligence And Data Science	48	HSc or Equivalent	English	120	118
PG	ME,Mechanical Engineering	24	BE or BTech in relevant discipline	English	6	0
PG	ME,Electronics And Communication Engineering	24	BE or BTech in relevant discipline	English	12	5
PG	ME,Computer Science And Engineering	24	BE or BTech in relevant discipline	English	12	0
PG	ME,Electrical And Electronics Engineering	24	BE or BTech in relevant discipline	English	12	0
PG	ME,Civil Engineering	24	BE or BTech in relevant discipline	English	6	1
PG	MCA,Computer Applications	24	BE or BTech in relevant discipline	English	60	60
Doctoral (Ph.D)	PhD or DPhil ,Mechanical Engineering	36	ME or MTech in relevant discipline	English	1	1
Doctoral (Ph.D)	PhD or DPhil ,Electronics And Communication Engineering	36	ME or MTech in relevant discipline	English	3	3
Doctoral	PhD or DPhil	36	ME or	English	3	3

(Ph.D)	,Computer Science And Engineering		MTech in relevant discipline			
Doctoral (Ph.D)	PhD or DPhil ,Information Technology	36	ME or MTech in relevant discipline	English	1	0
Doctoral (Ph.D)	PhD or DPhil ,Electrical And Electronics Engineering	36	ME or MTech in relevant discipline	English	1	1
Doctoral (Ph.D)	PhD or DPhil ,Automobile Engineering	36	ME or MTech in relevant discipline	English	1	1
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering	36	ME or MTech in relevant discipline	English	1	1

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	19				22				228			
Recruited	16	3	0	19	17	5	0	22	115	113	0	228
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				64
Recruited	49	15	0	64
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				46
Recruited	31	15	0	46
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/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	16	3	0	17	5	0	29	20	0	90
M.Phil.	0	0	0	0	0	0	1	15	0	16
PG	0	0	0	0	0	0	85	78	0	163
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/ LLD/DM/MCH	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
UG	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/DM/MCH	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
UG	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		Total
	0	0	0	0	
	0	0	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	2533	46	0	0	2579
	Female	747	7	0	0	754
	Others	0	0	0	0	0
PG	Male	69	0	0	0	69
	Female	79	1	0	0	80
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Category		Year 1	Year 2	Year 3	Year 4
SC	Male	36	12	24	24
	Female	13	6	5	10
	Others	0	0	0	0
ST	Male	1	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	450	338	485	497
	Female	216	134	129	179
	Others	0	0	0	0
General	Male	19	14	36	24
	Female	11	8	6	17
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		746	512	685	751

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Artificial Intelligence And Data Science	View Document
Automobile Engineering	View Document
Civil Engineering	View Document
Computer Applications	View Document
Computer Science And Engineering	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineering	View Document
Information Technology	View Document
Mechanical Engineering	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	<p>The core idea of NEP, such as variety for all curricula and pedagogy with technology breakthroughs in teaching and learning, supporting logical decision-making and innovation, critical thinking, and creativity, were the subject of a series of sessions conducted among the faculty members. With the NEP in mind, MCET has launched new multidisciplinary/interdisciplinary centres that integrate many departments in addition to inter/multidisciplinary research and academics that are already in place. Courses in multidisciplinary/interdisciplinary fields have been added as electives to academic programs. Every curriculum is created to provide students with as much freedom as possible when selecting electives from other programs. The recommendations made in the NEP are being aggressively implemented by MCET.</p>
2. Academic bank of credits (ABC):	<p>Academic Bank of Credits has been established on the lines of the National Academic Depository (NAD), in the sense, NAD is the backbone of ABC, where the students' academic data are held and academic awards are stored (i.e. storehouse of academic awards). Despite the fact that ABC enables students to register or commence credit transfer, the final outcomes of credit redemption and issuance of certificates, as well as the compilation of award</p>

	records, are administered by academic institutions via the NAD Platform. Our students are encouraged to register in NAD since 2019.
3. Skill development:	MCET has been constantly striving to provide contemporary skill development of youth in the region through its 18+ centers of excellence. These centers have created 17000+ skill impacts. Trainings at these centers are offered in multiple modes with TUV Rheinland, Technology Development Center and TNASDC in 20+ different topics. To enhance entrepreneurial knowledge and skills via structured training courses initiatives have been taken through Institution's Innovation Council. Also, under the employability enhancement program for student in skill courses, the college has already been running courses such as Business English Certificate and MNRE courses like Surya Mitra, Vayumitra programs etc.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	A unique curriculum that offers credit-bearing courses like environmental science, Universal Human Values, Wellness for Students, and Understanding Harmony is being offered to instil our Indian culture. MCET provides students with a great opportunity to showcase their talents in dance, music, art, and mime. The fine arts group plans a variety of cultural events to help students unwind, have fun, and balance their free time. Muthamil Mandram provides moral support and self-assurance to MCET faculty and students by speaking in their mother tongue, "Tamil". Activities are planned to help them remember who they are. Women's Day is a significant day which is celebrated with cultural events like Rangoli, Mehendi etc. MCET observes all religious festivals with equal importance to promote national integrity and awareness of the national and regional languages and associated culture of India. National memorial days like Constitution Day and Yoga Day are also observed. Teachers day, Republic Day and Independence Day are few examples of celebrations where students are spoken to in their mother tongue. Sinthanai Mandram conducts events to inculcate cultural thoughts every week. The college has a 2000-seat Centenary Center Auditorium, where cultural events are organized.
5. Focus on Outcome based education (OBE):	MCET has adopted Outcome-Based Education (OBE) since 2014 to apply the spirit of NEP and

	<p>meet global standards and stakeholder expectations across all programmes. MCET have an exclusive OBE division to adopt OBE practices in all academic departments. MCET adopts ADDIE model for the design of the curriculum. The curriculum design process adopts 12 steps starting from the survey of stakeholders to review of outcomes curriculum, syllabus and processes. Trainings on OBE were offered to all faculty members in the form of coaching sessions, workshop and refresher sessions for all faculty members and select target audiences in some cases. The division has developed around 20 plus training programmes for faculty members to enhance their competencies in teaching-learning process based on OBE model. MCET implementing OBE for all UG and PG programmes. We Disseminate Program Outcomes (PO), Program Specific Outcomes (PSO), Program Educational Outcomes (PEO) and Course Outcomes (CO) in our institutional website and also in the prominent places of all UG and PG departments. Each course is designed with specific Course outcomes(Cos).The Course Outcomes are assessed using variety of assessment methods such as, Continuous Comprehensive Evaluation Tests, end semester examination, quiz, assignment, project, and tutorial.</p>
6. Distance education/online education:	<p>Dr. Mahalingam College of Engineering and Technology, Pollachi-642003 is an autonomous Institution affiliated to Anna University Chennai. And the institute offer programmes in the field of Engineering and Technology. So Distance education/online education for technical courses are inappropriate. However, MCET encourages the students and faculty members to register online courses offered by NPTEL and SWAYAM platforms and provide credit equivalence to the students and suitably recognize in the case of faculty members in their performance appraisal system.</p>

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes, MCET constituted Electoral Literacy Club (ELC).
2. Whether students' co-ordinator and co-ordinating	MCET constituted Electoral Literacy Club (ELC)

<p>faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?</p>	<p>with involvement of student volunteers and staff coordinators. This club is functional and consists of 09 active student executive committee members, Campus ambassador, mentor and a nodal officer.</p>
<p>3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.</p>	<p>ELC of MCET regularly coordinating the voter awareness campaigns to spread the awareness about the voting to young minds to strengthen our democracy. Also our ELC, every year Celebrates Voters Day in the objective of increase the eligible voter's through new voter enrolment. Along with these activities, with the help of our college NSS & NCC units ELC creates electoral awareness events in adopted villages.</p>
<p>4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.</p>	<p>The ELC of MCET along with NSS and NCC units, we have conducted awareness drives like rally for creation of awareness on voting to common public. It aims to avoid cash for voting; maintaining confidentiality of voting, explained that voting is fundamental rights for a citizen in adopted villages.</p>
<p>5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.</p>	<p>ELC constantly creates awareness events and different types of competitions for students especially in I Year B. E/B. Tech students those who are considered as new voters.</p>

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2021-22	2020-21	2019-20	2018-19	2017-18
16	16	17	17	17
File Description		Document		
Institutional data in prescribed format		View Document		

1.2

Number of departments offering academic programmes

Response:

2 Students

2.1

Number of students year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3335	3299	3480	3459	3555
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
968	986	897	887	1009
File Description		Document		
Institutional data in prescribed format		View Document		

2.3**Number of students appeared in the examination conducted by the Institution, year-wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
3335	3299	3480	3459	3555
File Description		Document		
Institutional data in prescribed format		View Document		

2.4**Number of revaluation applications year-wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
25	29	3	25	24

3 Teachers**3.1****Number of courses in all programs year-wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
578	618	687	717	679
File Description		Document		
Institutional data in prescribed format		View Document		

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

2021-22	2020-21	2019-20	2018-19	2017-18
256	249	230	233	248
File Description		Document		
Institutional data in prescribed format		View Document		

3.3

Number of sanctioned posts year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
256	249	230	233	248
File Description		Document		
Institutional data in prescribed format		View Document		

4 Institution**4.1****Number of eligible applications received for admissions to all the programs year-wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
3150	2658	3450	3482	3856
File Description		Document		
Institutional data in prescribed format		View Document		

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

2021-22	2020-21	2019-20	2018-19	2017-18
398	418	479	510	473
File Description		Document		
Institutional data in prescribed format		View Document		

4.3**Total number of classrooms and seminar halls****Response: 76****4.4****Total number of computers in the campus for academic purpose****Response: 1724**

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

2021-22	2020-21	2019-20	2018-19	2017-18
1905.08	1324.96	2204.54	2960.84	3053.49

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1

Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

Response:

Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in POs, PSOs and COs of the Programmes. The autonomy of the Institution provides the opportunity to revise the curriculum based on needs and suggestions from various stake holders. The process of developing the curriculum and the course content takes into consideration the feedback from different stakeholders, including academicians, alumni, employers and industrial experts. It also ensures that it has relevance to the local, regional, national and global developmental needs. The curricula designed are recommended by the Programme Assessment Committee, Board of Studies and approved by Academic Council.

There are several courses which enable students to analyse the local and regional needs and provide solution based on their knowledge acquired and gives the students a real life experience. The project component embedded in the curriculum gives leverage to involve in the developmental activities of Pollachi and nearby villages. Field works are executed as part of service activities to the nearby villages, the upliftment of the society and technology transfer to the people. Few programs such as computer literacy training, setting up of solar dryers etc. yielded a good impact in the society. Few elective framed to meet the needs of society and encourage the students to interact with the farmers, government agencies to bring out their new ideas for the society. Students are motivated to provide relevant scientific solutions through, PURA (Providing Urban Facilities in Rural areas), Anveshna and Forge innovation programmes. Courses that encourage entrepreneurship development also assist in uplifting the youth's socioeconomic status of the region. In addition, industrial visits expose the students to real world problems. For meeting out the requirements of national and global level competencies, the institute introduced new courses such as Internet of Things, Data Science, Data Analytics, Cyber Security, Artificial Intelligence and Machine Learning. One credit and professional skills courses are offered to incorporate Industry oriented skills.

MCET CIBIE, an incubation centre is established to enhance the entrepreneurship skills of the students. The college also offers courses that may lead to orient our students to participate in "Make-in-India" a national mission for the economic growth of the nation. Aligned with the Digital India mission, courses related to latest computer languages like Python/JAVA/Data Science/cyber security are included in all programmes. Courses on renewable energy, environmental engineering are also offered to sensitize the students to environment protection, energy savings and global health. Co-curricular and extracurricular activities are aligned with the overall development of the student, which has an impact on the national and global developmental needs.

Implementation of OBE ensures that our graduating engineers have all 12 POs defined by NBA, and hence can compete on a global platform, and have expected global attributes. 3-5 PEOs are designed and measured through the performance of the alumni. In last five years, 2 Regulations are adopted and 5 amendments were being made for the continuous upgradation of curriculum and syllabus. Total credit ranges between 160 and 188 across 2 regulations.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

1.1.2

Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

1.1.2.1 Number of all Programmes offered by the institution during the last five years.

Response: 16

1.1.2.2 How many Programmes were revised out of total number of Programmes offered during the last five years

Response: 16

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Details of program syllabus revision in last 5 years(Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.1.3

Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 100

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..

2021-22	2020-21	2019-20	2018-19	2017-18
578	618	687	717	679

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.2 Academic Flexibility

1.2.1

Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 37.27

1.2.1.1 How many new courses are introduced within the last five years

Response: 1222

1.2.1.2 **Number of courses offered by the institution across all programmes during the last five years.**

Response: 3279

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

1.2.2

Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 100

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

Response: 16

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	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 institute ensures the integration of relevant cross cutting issues relevant to Professional Ethics, Gender, Environment and Sustainability, and Human Values into the curriculum of all the programmes offered. Taking advantage of the Credit System, students of other programmes can register these courses (under open elective category). As a part of curriculum, the induction programme for first year students were organized, which includes the orientation on Universal Human Values and environmental studies to all first year students as mandatory non-credit courses from AY2019-20 onwards.

Gender

Among teaching faculty nearly 50% of the faculty are women and 25% of the women faculty are Ph. D holders actively involved in research, and few more women faculty are pursuing their research programme. Women faculty are regularly participating in seminar, conference, workshops and faculty development programmes. The Women empowerment cell aims at creating awareness on women's rights and provides a platform to share their experiences and views regarding their status in the society. Women have been actively participating in all the club activities and given opportunity as office bearers to lead the team and organise the events.

Environment and Sustainability

Environmental Science is offered in all the undergraduate programmes. Also, courses on ‘Environment Impact Assessment’, ‘Disaster Management’, ‘Environmental Audit’ address the issues related to Environment and Sustainability. Students and faculty are involved in green auditing of the campus. Many events such as Water Conservation Week and Energy Conservation Week are organized every year to sensitize the campus on the sustainable developmental strategies. The students of Civil Engineering have courses on using natural and sustainable resources in their curriculum.

Human Values and Professional Ethics

Course on Ethics and Values is offered for all the undergraduate students. In addition to this, other courses such as Bioethics, Corporate Ethics, Business ethics, Media Ethics are incorporated in the curriculum of relevant programmes. Topics on manners and etiquettes are covered in courses related to employability and soft skills. The institution has made the participation of students in extra-curricular activity as a requirement for graduation. There are 20 clubs and 10 chapters available for students to register based on their interest to extend their support to the social cause and create awareness related to gender and issues related to sustainable living. Visit to orphanages, as part of their extracurricular activity, make the students to respect the human values and make them understand the moral and social responsibility. As part of the course, section of students contributes to the NCC and NSS schemes. These extracurricular activities promote gender equity, facilitates team work, enhances leadership skills, and builds confidence, personal social responsibility, as these mould them to be holistic individuals. Universal human Values: Understanding the harmony a 3 credited course is offered to all second year UG students, which deals in detail about the harmony of self, with family, with society and with nature.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document
Link for Additional Information	View Document

1.3.2

Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 321

1.3.2.1 How many new value-added courses are added within the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
65	59	67	60	70

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.3.3

Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 80.18

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

2021-22	2020-21	2019-20	2018-19	2017-18
3778	1755	1614	2538	4076

File Description	Document
List of students enrolled	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.3.4

Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

Response: 75.53

1.3.4.1 Number of students undertaking field projects / internships / student projects

Response: 2519

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.4 Feedback System

1.4.1

Structured feedback for design and review of syllabus – semester-wise / year-wise is received from

1) Students, 2) Teachers, 3) Employers,

4) Alumni

Response: A. All 4 of the above

File Description	Document
Any additional information	View Document
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document
Link for Additional Information	View Document

1.4.2

The feedback system of the Institution comprises of the following :

Response: A. Feedback collected, analysed and action taken and report made available on website

File Description	Document
Any additional information	View Document
URL for stakeholder feedback report	View Document
Link for Additional Information	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1

Average Enrolment percentage (Average of last five years)

Response: 87.06

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

2021-22	2020-21	2019-20	2018-19	2017-18
948	732	941	938	1022

2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
948	990	1110	1110	1110

File Description

Document

Institutional data in prescribed format (Data Template)

[View Document](#)

Any additional information

[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: 80.55

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

2021-22	2020-21	2019-20	2018-19	2017-18
331	281	374	465	393

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

The students' learning levels are assessed based on their academic, co-curricular and extracurricular performance. Equal importance is given to all the categories of learners. Based on the learners' interest and competency, a varied learning environment is established. Advanced learners are encouraged to take additional elective courses in a fast-track mode. Students are permitted to register for two online courses instead of Professional or Open electives. Credits earned through online mode may be transferred and grades shall be assigned to the students as per the guidelines of Anna University. The slow learners are identified from the continuous comprehensive evaluation tests, and special coaching classes are conducted for their improvement. The mentor system with 20 students assigned to a faculty, identifies students with difficulty in particular subjects. These slow learners are tutored in remedial classes. In addition, departments make use of peer teaching, assignments, internal tests that help students learn better. Personalized counseling is given to the students. Effective counseling is provided to the students to make them involved in studies at the earlier stage itself.

Curriculum also includes Wellness for Students and Universal Human Values. Employability Skills 1: Teamness and Interpersonal Skills and Employability Skills 2: Campus-to-Corporate training to develop interpersonal and life skills are included. The Centres of Excellence promote value-added education, which include both hardware and software knowledge to provide learners with industry exposure. As part of the activities of the departments associations and clubs, guest lectures, seminars, webinars, conferences, and quizzes are organized to motivate the students and enrich their knowledge of the latest technologies.

Additionally, students are encouraged to attend online courses hosted by NPTEL, Coursera, etc. Tab based Teaching Learning, MS teams and virtual labs are used to enrich blended learning. Leading industry experts share their knowledge with the students during industry conclaves. Conclaves also feature young entrepreneurs to promote entrepreneurship and alumni sharing their stories. Structured bridge courses are offered for first-year students and lateral entry students before the commencement of regular classes to fill the gap between their entry-level academic achievements and the demands of the engineering curriculum. Students are encouraged to take up internships in industry or skill development courses based on their academic performance during the second, third and final year of study. Students, who actively participate in sports meets/tournaments at zonal, University levels are provided learning materials/classes to bridge the gap and are encouraged to participate in such activities. Best practices are identified and shared across departments in order to improve teaching and learning process on a continuous basis.

File Description	Document
Any additional information	View Document

2.2.2

Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 13.03

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:

The college is providing well-planned, supervised and assessed experiential learning through practical / lab courses. It is further extended as the project works and the internship, which is focusing on interdisciplinary learning, intellectual skills, leadership and teamwork addressing non-technical graduate attributes of Washington Accord. During the experiential learning, the students are actively engaged in investigating, experimenting, being curious, solving problems, assuming responsibility and are challenged to take initiative, make decisions and be accountable for results.

Students are encouraged to learn continuously by participating in contests, taking courses offered by NPTEL – SWAYAM and taking value added courses through the centers of excellence in campus. These centers of excellence have been established collaborating with leading companies inside the campus. It provides an opportunity for students to gain knowledge and skills in emerging areas. Apart from this, the college is providing open elective courses for fostering interdisciplinary learning.

Active learning and Innovative Teaching Learning methods such as Think-Pair-Share, Peer Instruction, Role Play, etc. encourage all the students. Participative learning is also promoted through Group discussion and Case Study discussions.

ICT enabled tools like Learning management system, MS Teams Platform, OBS studio, Open-Short video editor, Hand-Brake, Moodle and Word-Press are used for effective learning processes.

To promote professional learning experience, internship is introduced in our curriculum and students are encouraged to undergo credited internship in reputed organization during their fourth, sixth semester vacation and eighth semester for a duration of 2 weeks (1 credit), 2 to 4 weeks (1 credit) and 8 to 16

weeks (4 credits) respectively.

The curriculum is developed to integrate problem solving methodology by providing tutorial sessions for analytical courses. The curriculum also encourages the use of problem-solving tools and techniques in the assignments of select courses and final year projects. Every student is required to undertake project work as indicated in the curriculum of the respective programme in Industry / department in consultation with the Head of the Department and the faculty guide. Project work may be allotted to a single student or to a group of students (maximum of three students). The examination for the project work shall consist of the evaluation of the final report and viva-voce conducted individually for each student by both the external examiner and the internal examiner.

File Description	Document
Any additional information	View Document

2.3.2

Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

In order to enhance the learning experience, state-of-the-art educational technologies are employed in the teaching-learning process. All classrooms are equipped with LCD projector and system connectivity. Laptops are provided to all the departments for taking classes. Video conferencing facilities are made available in the institution for interacting with experts, alumni and peer groups for value added discussions related to emerging topics.

ICT enabled tools like Learning management system, MS Teams Platform, OBS studio, Open-Short video editor, Hand-Brake, Moodle and Word-Press are used for effective learning processes.

The pandemic has forced the institutes to think of ways and means of sustaining the teaching learning practices. During the pandemic, E-learning system development was considered on priority. Exposure and training for faculty members on online platforms was conducted by experts. With the implementation of the e-learning system, institute targeted conducting online classes for all the courses. Targets with respect to the content were specified and were fairly achieved in all the theory and practical courses.

During Covid pandemic lock down, online classes were conducted through MS Teams and Virtual labs in the AY 2020-21.

E-content materials are shared in the form of PPT, pdf, video, animations, workbook and handouts.

All the courses were delivered through MS Teams as live sessions and MS Stream as Recorded videos with in-quizzes for each course.

Doubt Clarification Sessions (DCS) were conducted for each course at least once in a week.

All Formative Assessments, Quizzes and Internal examinations are conducted through MS forms.

End semester examinations were conducted using e-Proctoring portal.

Periodic feedback from the students and the faculty members were collected through online mode.

Laboratory courses related to programming languages such as C, C++, Java, Python etc. were conducted using e-Learning@mcet Moodle with internal server hosted.

During pandemic, Student Induction Program was conducted through online mode.

BEC certification course is offered to the first year students. Foreign languages center was established in our institution to enhance the additional language learning skill of the students.

All faculty, support staff and students were trained to use the ICT resources, technological platforms and online resources to enhance and supplement the regular process.

Online e-resources like E-Learning Courses from the IITs & IISc, MIT OPEN COURSEWARE, VIRTUAL LABs and E-Learning Courses from Faculty of MCET are shared through our website for enhancing teaching learning process.

File Description	Document
Any additional information	View Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	View Document
Link for Additional Information	View Document

2.3.3

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

Response: 13.03

2.3.3.1 Number of mentors ?????????????? ???????

Response: 256

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	View Document
Circulars pertaining to assigning mentors to mentees	View Document
Any additional information	View Document

2.3.4

Preparation and adherence of Academic Calendar and Teaching plans by the institution

Response:

1. Academic Calendar

The Controller of Examinations in consultation with the Dean (Academics & Autonomous) and the Principal prepares the academic calendar after collecting the plan of action from Department and Section heads. The academic calendar ensures the smooth functioning of the institution. It is printed, displayed on the notice boards and updated on the college website. The college calendar will be circulated to the students before the commencement of classes.

The Calendar includes the details of working days, holidays, dates of the Continuous Comprehensive Evaluation Tests, Project Review dates, End semester Examination dates, and Last Working day.

In case of any unexpected situations which are beyond the control of the institution, necessary changes are made by the authorities and the same is displayed on notice boards and on the institution's website. The deviation in academic calendars is minimal.

2. Teaching Plans

Heads of the departments conduct meeting with their respective faculty well in-advance of the commencement of the semester and allocate courses.

MCET has a well-defined unitized syllabus with a timeframe that is provided to the students at the beginning of the course. The course coordinator prepares a detailed Design Document which includes, Course Outcomes (What the student will be able to do at the end of this course), Learning Outcomes (What the student should be able to do if he has to do the relevant CO), Specific Outcomes (What the student should be able to do if he has to do the relevant LO) , Content (The content that needs to be covered if the student has to do the relevant SO) , Bloom's Taxonomy level, Methodology of content delivery, Time, Training aids such as cut-sections, working models, etc. required to deliver the content and reference materials. Based on the design document the course coordinator prepares the Lesson plan, describing the timescale, teaching aids, methods of teaching-learning and assessment of the same. The lesson plan for each course visualizes the plan of the teacher to make each class more informative, interesting, analytical and resourceful. The lesson plan creates a self- informed and self-monitored innovative course coordinator, and it provides a plan of action for the course coordinator and guidance

for the students.

Course-coverage is monitored by the concerned HOD once in a fortnight and deviations if any are clarified with the concerned faculty and the special class work is planned accordingly.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	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: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	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: 15.36

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

2021-22	2020-21	2019-20	2018-19	2017-18
43	42	35	35	32

File Description	Document
Institutional data in prescribed format (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: 6.82

2.4.3.1 Total experience of full-time teachers

Response: 1746

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

2.5 Evaluation Process and Reforms

2.5.1

Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 18.7

2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
18	21	16	19	19.5

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document

2.5.2

Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0.62

2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
25	29	3	25	24

File Description**Document**

Number of complaints and total number of students appeared year wise

[View Document](#)

2.5.3

IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution

Response:

The autonomous examination system of the institution is ably supported by a strong IT infrastructure. The institution has developed in-house IT tools for the management of the entire examination system commencing from course registration and ending with publication of results. A third-party IT tool is also used along with the in-house IT tool to handle selected operations of the examination system such as results processing. The processes and procedures of the examination system are documented, reviewed by committees, and approved by competent authority. Improvements in processes and procedure are periodically introduced and approved by statutory bodies. The institution follows a continuous comprehensive evaluation system with absolute grading and CGPA based reporting of student performance. The institution has implemented relative grading from the 2021 batch onwards. The IT tool is used in the management of course registration, attendance recording, entry of marks and calculation of internal marks, CO wise attainment calculations, collection and reporting of faculty feedback. The IT tool also supports the automatic question paper generation for the continuous comprehensive evaluation test for selective courses. The IT tool also supports for processing of end semester results, publication of results and the archiving of marks and grades. Co-creation of question papers, using experts for assessments are some of the important practices. The institution is also well equipped to conduct proctored examinations.

Questions for Continuous Assessment and ESE are mapped with Course Outcomes and cognitive levels as recommended by Bloom's Taxonomy that facilitates assessing the attainment levels of Course Outcomes, Programme Outcomes and Programme Specific Outcomes of a given batch.

Continuous Internal Assessment (CIA) includes two Continuous Comprehensive Evaluation Test (CCET) in a semester for each theory course and practical course, every practical exercise / experiment shall be evaluated based on the conduct of the experiment / exercise and the records to be maintained. There shall be at least one test to keep the students engaged with the course content throughout the semester.

The End Semester Examination (ESE), theory will be of three hours duration and will be conducted between October and December for the odd semesters and between April and June for the even semesters. The project to be completed in the final semester can be done as a team work. The examination for the project work shall consist of the evaluation of the final report by an examiner followed by a viva-voce examination.

Web link: <https://coerp.mcet.in/>

File Description	Document
Any additional information	View Document
Link for 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) and program specific outcomes (PSOs) for all programs offered by the institution are stated and displayed at appropriate locations. Program outcomes and course outcomes are developed by the concerned departments using a common systematic approach. Graduate attributes of Washington Accord and list of graduate characteristics issued by the National Board of Accreditation (NBA) are used to develop the Program Educational Objectives (PEOs), program outcomes, and program-specific outcomes of a department. The process for the evolution of curriculum and outcomes is shown in Fig.1.

Figure 1

Process of formulating Outcomes

Feedback is obtained from industries, alumni, academic experts and students through email and in person during their visits. The collected feedback is analyzed and the Program Outcomes (POs) as suggested by the NBA, two to four Program Specific Outcomes (PSOs) are drafted for outcome-based education to evolve the broad technical areas in which the students' knowledge, technical and professional skills have

to be imparted and assessed. The courses are identified and the curriculum is formed for the POs and PSOs. Course Outcomes (COs) are then written for each identified course in alignment with the POs and PSOs and are listed in each syllabus along with the Course Articulation Matrix in the curriculum. As per Bloom's taxonomy, the Course Outcome is mapped with appropriate cognitive levels which in turn are mapped with appropriate Program Outcomes in 3-point scale (3- substantial, 2- moderate and 1-slight). The syllabus content is formulated for each course outcome and thus the syllabi for all the courses are developed.

The Board of Studies of the relevant departments reviews the POs and PSOs, and the academic council of the institution approves it. The number of Course Outcomes varies depending on the type of course. A three-credit theory course will typically have five course outcomes. Based on the course delivery, course outcomes are further converted into enabling outcomes by the corresponding course handling faculty. The lesson plan includes a thorough explanation of how the outcomes are related and addressed in the course. Course content and sessions explicitly state all the relevant outcomes while they are being addressed. Additionally, the assessment question papers include Course Outcomes and its Cognitive Level. After assessment is carried out, the attainment of Course Outcome addressed in the assessment will also be indicated and verified by each student in the answer script. Refinement of COs, POs & PSOs and PEOs are carried out. The dissemination of the same to the stakeholders such as Faculty, Students, Alumni, Parents and Employers are done as mentioned below:

Dissemination of the PEOs, POs and PSOs

- Institute website
- Curriculum book
- Department Office, Notice boards, Laboratories and Department Library
- Faculty rooms and classrooms
- Department association newsletter
- Department brochure
- Faculty meetings, induction programmes, Orientation programmes, and Parents meetings

Dissemination of COs

- Curriculum book
- Lesson Plan
- Class Committee Meetings
- Question Papers

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document
Link for Additional Information	View Document

2.6.2

Attainment of programme outcomes and course outcomes are evaluated by the institution.**Response:**

All programs have Program Outcomes, Course Outcomes and Program Specific Outcomes developed and specified in program curriculum and syllabus book. Course articulation matrix and Program articulation matrix are developed for all programmes. Teaching learning methods and assessments like tests, quizzes, projects etc. are aligned to the outcomes. Questions in assessments are set at various Blooms levels of the outcomes. Questions pertain to learning outcomes or specific outcomes depending on the type of assessment and the nature of course. Wherever possible, marks scored by individual students in each question of various assessments are captured. The marks/ grades of each student are used in calculation of course wise course outcome attainment. Direct and In-direct methods are used for calculating attainments. Course outcome attainment results in Program Outcomes and Program Specific Outcomes attainment of programs with the help of mapping in the course and program articulation matrix. The steps and procedure to be followed are specified in a quality system manual. Four level Likert's scale is used for reporting and analyzing attainments. Four levels in the Likert's scale corresponds to scores 0-3. Targets with respect to courses and program attainments scores are fixed and monitored periodically for attainment and corrective action by the departments.

Assessment tools applied for assessing the attainment of Course Outcomes

Assessment Method	Description
Continuous Assessment End Semester Exam	Continuous Comprehensive Evaluation Test (CCET) and End Semester Exam (ESE) marks help to assess the attainment levels of COs pertaining to course knowledge, problem analysis, solving and effective communication.
Laboratory Tests	Internal marks for laboratory courses are awarded on continuous basis and End semester evaluation is done in the presence of examiners. This typically involves design & development of solutions, investigation of problems, usage of apt tools / techniques, individual work, effective management and ability for life-long learning.
Tutorial	Tutorials will be conducted for analytical courses. This helps to assess the course knowledge, analysis, design and tool usage capabilities.
Quiz	Quiz component will be conducted for theory and practical courses. This helps to assess the course knowledge, analytical skills and individual ability of the learner.
Assignments	Assignments involve problem-solving / case studies / design / tool usage etc. and contribute to the measurement of corresponding PO attainment.
Seminars	Seminars usually involve self-study and contribute towards the assessment of life-long learning capability besides communication, individual work, knowledge and problem analysis.

Case Study	Case studies may involve analysis, design, investigation and proposal of environmentally / economically sustainable solutions for societal problems. They also help to test the individual / team work, communication skills and life-long learning ability.
Project work	The Project work is carried out during fourth semester (Mini-project), sixth semester (Innovative and Creativity Project) and eighth semester (Project).
File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.6.3**Pass Percentage of students(Data for the latest completed academic year)****Response:** 98.97**2.6.3.1 Total number of final year students who passed the examination conducted by Institution.**

Response: 957

2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.

Response: 967

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	View Document
Any additional information	View Document
Link for the annual report	View Document

2.7 Student Satisfaction Survey**2.7.1****Online student satisfaction survey regarding teaching learning process****Response:** 3.71

File Description	Document
Upload database of all currently enrolled students	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1

The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

The Research facilities at MCET are frequently updated to support the faculty and students research activities. MCET is committed to promote quality research and consultancy works to facilitate faculty members by establishing i)state of the art facilities,ii)collaboration with industries and other institutions,iii)formulating well defined Policies and processes.

The campus has four techno-commercial ventures to provide hands on experience, internship and industry exposure to students and faculty members.

The details pertaining to Research, Innovation, Consultancy and Extension are frequently updated in the institution's website.

A few of the notable research support services are listed below:

1. **Exclusive office to promote Research and Innovation(R&I) headed by Dean R&I**–The cell promotes research activities such as Paper Publications, Project proposals, Patent drafting, interdisciplinary discussion forum and shares announcement of research related funded schemes offered by Government and various industries. It also provides events such as knowledge-sharing sessions to encourage and bring out unique ideas from both students and faculty.
2. Well defined policies are framed to promote R&I.
3. **Incentives are provided to faculty members for research publications, online certifications, filing patents**-An amount of Rs.18,27,500 has been provided as incentive to motivate the contribution of faculty members in research activities. Revenue of Rs.1,24,06,723 was generated from facilities created through consultancies.
4. **Financial support is provided to faculty members for attending Conferences, Workshops, FDPs.**
5. **Provision of seed money for R&D**-To promote early-career research activity among all prospective faculty members and students, an amount of Rs.18.7 lakhs has been provided in the past five years for 21 projects.
6. **Support to pursue Ph.D.**-Currently MCET has 7 Research Centers with 56 faculty members acting as guide, 78 are pursuing Ph.D and 71 have completed Ph.D.
7. Students are financially supported for innovative projects, Hackathon and other R&I activities.
8. **Establishment of Centre of Excellence(COE),Industry driven state of the art facility and linkages**
 - The Institution established 18 CoEs in partnership with industry. CoEs offer advanced training, research and consulting opportunities to students, faculty and industry personnel.
 - Industry collaborations are facilitated through MoUs which enables students to conduct industry driven research activities. There are 40 functional MoUs at present.

- Advanced equipment and software licenses from notable industries like SIEMENS, REXROTH, CAPGEMINI, MITSUBISHI, EKKI, BOSCH etc., are available.
- 9. **Industrial training provided to faculty members through various FDPs organised by AICTE, NPTEL, IITs, NITs, NITTTR and others, as well as industry collaborations, supports in the execution of excellent research and consultancy services.**
- 10. **The Centre for Innovation, Business Incubation, and Entrepreneurship (CIBIE) provides incubation to students who want to start their own businesses.** Currently, 16 Incubates including students, alumni and graduates from other colleges are actively functioning.
- 11. **Availability of State-of-the-art research equipment**-Research facilities are made accessible on the campus to assist faculty members in performing research activities. Equipment includes Chroma Thermal interface model, Hydraulic Actuator, Instron-Impact Test, Robotics welding machine etc.
- 12. Subscriptions are made to international journals and research related books.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View Document
Any additional information	View Document
URL of Policy document on promotion of research uploaded on website	View Document

3.1.2

The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 2.95

3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

2021-22	2020-21	2019-20	2018-19	2017-18
1.01	.96	0.96	6.55	5.29

File Description	Document
Minutes of the relevant bodies of the Institution	View Document
List of teachers receiving grant and details of grant received	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document
Any additional information	View Document

3.1.3

Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years

Response: 3.21

3.1.3.1 The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
8	4	5	7	15

File Description	Document
List of teachers and their international fellowship details	View Document
e-copies of the award letters of the teachers	View Document

3.2 Resource Mobilization for Research**3.2.1**

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: 206.85

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

2021-22	2020-21	2019-20	2018-19	2017-18
1.33	31.87	81.59	32.15	59.91

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by government and non-government	View Document
Any additional information	View Document

3.2.2

Percentage of teachers having research projects during the last five years

Response: 4.85

3.2.2.1 Number of teachers having research projects during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
10	14	9	14	12

File Description	Document
Names of teachers having research projects	View Document
Any additional information	View Document
Link for additional information	View Document

3.2.3

Percentage of teachers recognised as research guides

Response: 17.19

3.2.3.1 Number of teachers recognized as research guides

Response: 44

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document
Any additional information	View Document
Link for additional information	View Document

3.2.4

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

Response: 79.27

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

2021-22	2020-21	2019-20	2018-19	2017-18
5	10	6	6	15

3.2.4.2 Number of departments offering academic programmes

2021-22	2020-21	2019-20	2018-19	2017-18
11	10	11	10	11

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Any additional information	View Document
Paste link to funding agency website	View Document

3.3 Innovation Ecosystem

3.3.1

Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation

etc.

Response:

MCET has created an ecosystem of centres for research, entrepreneurship, community engagement, and incubation that support innovations, knowledge development, and transfer. The Centre for Innovation Business Incubation and Entrepreneurship (CIBIE) was founded in the year 2015 to promote innovation-driven entrepreneurship among engineering students.

CIBIE offers common facility to incubates such as: Work Space, Conference Room, IT infrastructure and power. The abstract of their ideas are shared with Entrepreneurship Development Forums such as TNSI, Forge Accelerator etc. This allows students to attend a course on Idea Pitching and hone their abilities to become well-rounded professionals.

Since its foundation, CIBIE has supported 16 start-up firms that focus on technology-based solutions in domains such as Software as a Service, product automation, agriculture-based software application development, product innovations on agricultural implements, organic value-added products, and so on. The founders of start-up companies are of students/alumni/local entrepreneurs. Out of 16 start-ups, 3 Agri Tech based startup companies founded by alumni and local entrepreneur raised grant from EDII-TN to the tune of Rs. 7.5 lakhs through Innovation Voucher Programme(IVP) to convert their idea into prototype. Multi rotor Tractor Rotavator and Roto-Tiller, Development of Automatic Jeevamirtham preparation Machine and Development of Coconut dehusker and fibre separation Unit are the three ideas selected under IVP scheme. One of our student's start-up named "Stark Tech" is working on drone development for cleaning of rivers, ponds and other water resources. FarmYield Agri products LLP another startup company incubated with CIBIE gives training on production of virgin coconut oil. The active Incubates are as follows:

S.No.	Name of the Company	Inception	Founder	Team Size	Student/Alumnus/ Local Entrepreneur	Nature of Business	Incubation Status
1	Seyonn Digitals	2015	K. Krishnaraj	4	Local Entrepreneur	Agri App Development	In Campus
2	Awerum	2018	Muthuselvakumar	2	Alumnus	Saas Company	
3	Mash Technologies	2016	S. Vignesh	2	Alumnus	Transport Aggregator	Virtual
4	Hash Automation	2019	G Guru Aswath	7	Alumnus	Home Automation	
5	Mayon Technologies	2019	Manoj K Sriivardhan	2	Alumnus	Production of Jeevamirtham	
6	Ironman Technology	2019	V Vinod	5	Alumnus	Artificial Intelligence	
7	Terrain Industries	2020	T Praveen	1	Alumnus	Electric Vehicle	
8	Technitto	2020	K Vinod	4	Alumnus	Software Product	

9	J K Coir	2020	S Karthik	1	Local Entrepreneur	Coconut Dehusking	
10	S K Machines	2021	S Kisore	10	Alumnus	Farm Equipment	
11	Suresh Km Tech	2021	K M Suresh	2	Alumnus	Farming Tools	
12	Stark Tech	2022	S. B . Pranav Kumar	20	Student	Prototyping of Unmanned Aerial Vehicle	In Campus
13	Farm Yield Agri Products	2022	V.Sethupathy	2	Alumnus	Virgin Coconut Oil Production	
14	Brains of Tech	2022	A Srinand	10	Student	Commercial Videography and Digital Marketing	
15	Campus to Home	2022	Ashwin Jeeva Dalmia	2	Student	Logistics Support for Hostel Students	
16	Avini's Shakes	2022	Vaidheeswaran	1	Student	Trading of Milk Shakes and Parlour	

CIBIE organizes various programmes and meetings to strengthen the entrepreneurship ecosystem and to create awareness in the campus. Students with best ideas are mentored and encouraged to transform their ideas to prototype and eventually become an incubate

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

3.3.2

Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

Response: 300

3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
75	50	60	50	65

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

3.4 Research Publications and Awards

3.4.1

The Institution ensures implementation of its stated Code of Ethics for research through the following:

- 1. Inclusion of research ethics in the research methodology course work**
- 2. Presence of Ethics committee**
- 3. Plagiarism check through software**
- 4. Research Advisory Committee**

Response: B. 3 of the above

File Description	Document
Any additional information	View Document

3.4.2

Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years

Response: 0.75

3.4.2.1 How many Ph.Ds are registered within last 5 years

Response: 33

3.4.2.2 Number of teachers recognized as guides during the last five years

Response: 44

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
URL to the research page on HEI web site	View Document

3.4.3

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

Response: 2.1

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

2021-22	2020-21	2019-20	2018-19	2017-18
24	150	128	103	106

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

3.4.4

Number of books and chapters in edited volumes / books published per teacher during the last five years

Response: 0.45

3.4.4.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
39	31	21	8	11

File Description	Document
List books and chapters in edited volumes / books published	View Document
Any additional information	View Document

3.4.5**Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed****Response:** 6.65

File Description	Document
Bibliometrics of the publications during the last five years	View Document

3.4.6**Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution****Response:** 26

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document

3.5 Consultancy**3.5.1****Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).****Response:** 124.07**3.5.1.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).**

2021-22	2020-21	2019-20	2018-19	2017-18
21.26	25.59	38.10	35.14	3.98

File Description	Document
List of consultants and revenue generated by them	View Document
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View Document
Any additional information	View Document

3.5.2

Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

Response: 281.65

3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
28.91	25.90	22.82	44.32	159.70

File Description	Document
List of training programmes, teachers and staff trained for undertaking consultancy	View Document
List of facilities and staff available for undertaking consultancy	View Document
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View Document
Any additional information	View Document

3.6 Extension Activities

3.6.1

Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development, and impact thereof during the last five years

Response:

We make a living by what we get, but we make a life by what we give to the society. In this aspect, MCET encourages social responsibility policies and outreach programs for students

Schemes	Activities
NSS	<ul style="list-style-type: none"> • Blood Donation Camp • Seven Days Special Camp • Eye Camp • Covid Vaccination Camp • RT-PCR test Camp • Special Aadhaar Camp • Traffic Awareness programme • Awareness on Conservation of Electricity • Tree plantation Camp • Jal Shakthi Abhiyan • School Cluster Program for Government School students
NCC	<ul style="list-style-type: none"> • Swatch Bharat Activities (Clean India) • Puneet Sagar Abhiyan • Election Awareness Programme • Road Safety Awareness Programme • Blood Donation
Unnat Bharath Abhiyan	<ul style="list-style-type: none"> • Tree Plantation Activities • Jal Shakthi Abhiyan Awareness workshop for Farmers • Blood Donation Camp • Medical Camp • Covid 19 Testing Camp • Covid 19 Vaccination Camp • Skill Development Trainings
Sakthi PURA	<ul style="list-style-type: none"> • Covid Vaccination Camp • T-PCR Sample Collection Camp • Blood donation camp • Free Eye Retina Test and Diabetic Medical Camp • Awareness Programme on YOGA • Awareness Programme on Entrepreneurship Development • Road safety awareness program • Dinamalar Jaithu Kaattuvom Programme • Election 2019 Awareness Programme
Clubs	<ul style="list-style-type: none"> • YRC/RRC • Environmental club • Citizen Consumer Club
NIA Skill Foundation	<ul style="list-style-type: none"> • MCET - Keysight Centre for RF Communication Systems • MCET-TUV Rheinland Centre for Advanced Training(B) • MCET-Mitsubishi Electric Centre for

	<p>Factory Automation</p> <ul style="list-style-type: none"> • MCET- FANUC Centre for CNC and Robotics • MCET- Bosch Artisan Training Centre • MCET- Janatics Centre of Excellence for Mechatronics and Automation • MCET- Bosch Joint Certification Centre • MCET- HaritaTechserv Research Centre on New Product Development and Manufacturing Technologies • MCET- Siemens Centre for Digital Manufacturing • MCET- TUV Rheinland Centre for Automotive Training • MCET- ASIC Centre of Excellence • MCET- Bosch Rexroth Regional Centre of Competence in Industrial Automation Technologies • MCET- Swelect Centre for Solar PV Training and Research • MCET - Embdes IoT Centre • MCET- EKKI International Water Technology Centre • MCET- Centre for Design and Analysis and Testing (C-DAT) • MCET- Altair Centre of Excellence • MCET – Electronics Manufacturing Skill Training Centre • MCET – Virtusa Centre of Excellence for Software Testing • MCET – Centre for Learning and Development
<p>Contribution to the society</p>	<ul style="list-style-type: none"> • Donation to Patient Welfare Society, GH, Pollachi – Rs 6,21,000 • Pollachi Tamizhisai Sangam – Rs.1,25,000 • Donation to Sports competition – Rs.40,000 • Maintenance of Parks – Rs. 8,29,573 • M/s.Agastya International Foundation, Andhra – Rs.4,10,500 • Bus stop Building – Rs.7,32,922 • Upliftment of Women through Yuvasakthi – Rs. 18,37,968 • Government Schools - Book Distribution - Rs. 3,52,323

Impact on students

The active involvement of the students in the extension and outreach activities has enabled them to exhibit their development in the various dimensions as:

- Holistic development
- Responsible citizens of the society
- Making students compassionate
- Awareness on Blood donation, Road safety, Tree plantation, Health checkups, Women empowerment, etc.,

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

3.6.2

Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

Response: 0

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

2021-22	2020-21	2019-20	2018-19	2017-18
00	00	00	00	00

File Description	Document
Number of awards for extension activities in last 5 year	View Document
e-copy of the award letters	View Document
Any additional information	View Document

3.6.3

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

Response: 57

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

2021-22	2020-21	2019-20	2018-19	2017-18
19	8	11	11	8

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
Any additional information	View Document

3.6.4

Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 78.2

3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
2831	1568	3420	2141	3498

File Description	Document
Reports of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document
Any additional information	View Document

3.7 Collaboration

3.7.1

Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Response: 397.8

3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

2021-22	2020-21	2019-20	2018-19	2017-18
400	308	433	455	393

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document
Any additional information	View Document

3.7.2

Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 37

3.7.2.1 Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3	4	2	7	21

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years	View Document
Any additional information	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:

The institution is equipped with 68 class rooms with LCD and Wi- Fi/LAN facilities and 8 air-conditioned seminar halls with ICT facilities. Class rooms are well-designed with appropriate seating arrangements, lighting, ventilation, and acoustics. The institution has well equipped laboratories with modern equipment, tools, and safety measures to facilitate experiments, research, and data analysis. 18 Centre of excellence are established by the College in collaboration with industries to furnish ample opportunity for the students and staff to comprehend the latest industry practice and upgrade their knowledge through industry relevant projects.

A well-stocked Central Library provides to a wide range of resources, including books, journals, reference materials, and digital resources. The Central Library has good collection of books (65181 volume of books), e-books(Pearson-67) e-journals(IEEE-192, Springer-445), Print Journals (International-96, National-96, General Magazine -10), CDs and DVDs covering various branches of Engineering, Technology, Science and Humanities and other related fields. In addition, the library has e-resources facility to access DELNET and NDL. MCET currently provides 300Mbps internet connectivity through Reliance ISP provider. All the three blocks are Wi-Fi enabled.

Centre for Innovation, Business Incubation and Entrepreneurship (CIBIE) nurtures student innovations by providing infrastructure, Incubation and creates opportunities for start-ups to kindle their entrepreneurial passion.

An exclusive transport department at the college maintains 41 vehicles, including buses, vans and cars, for the use of the teachers and students. Dispensary, Bank, book depot, three cafeterias, ATM and post office are available inside the campus for student use. Excellent sports facilities are available inside the campus. A multipurpose indoor stadium with a seating capacity of 3000, outdoor fields, and courts for various sports such as Fitness centre(Gym), basketball, volleyball, tennis, badminton, and cricket are common features of a sports complex. These facilities are outfitted with high-quality sports surfaces, spectator seating, and the essential equipment for each event.

A well-furnished hostel is available for men and women separately. It can accommodate 1122 men and 600 women students. Single, double and multi member rooms are available in the hostel. The rooms are well-equipped, as is the mess, which includes a modern kitchen and a furnished dining hall serves vegetarian food, on dividing system. Students are provided with facilities such a fan, tube light, cupboards, etc., ensuring their comfort. Internet browsing, Library and Reading room, Medical Facilities, Laundry, Hair Dressing facilities, Inbuilt Canteen, Xerox Centre etc. are available for the convenience of the students staying in the hostel. The Hostel administration is carried out by the Warden with the assistance of a Deputy Warden. Resident proctors are available for guidance and counseling to the students

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, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)

Response:

CULTURAL ACTIVITIES

Our institution strongly believes in promoting cultural diversity and encouraging artistic expression among students. College has a Centenary Centre Auditorium with a capacity of 3000 to conduct cultural and other mega events. This auditorium is equipped with modern audio-visual equipment, stage setups, and seating arrangements, providing an ideal platform for performing arts, music concerts, dance performances, theatrical productions, and other cultural events. Additionally, we organize annual cultural festivals and events that allow students to showcase their talents and immerse themselves in different cultural experiences

Fine arts club organizes various cultural activities to make the students relax, enjoy and balance leisure. Muthamizh Mandram was started in the campus to give moral support to the student community for strengthening their interpersonal skills. Speaking in their native language “Tamil” boosts their confidence. Events are planned once a year for MCET faculty and school students to showcase their literary talents.

YOGA CENTRE

We have a dedicated yoga centre to encourage both mental and physical wellness of the student. This serene space provides an ideal environment for students to practice yoga, meditation, and mindfulness exercises. Trained yoga instructors guide students through various yoga postures, breathing techniques, and relaxation practices, helping them develop a balanced mind-body connection. The yoga center provides students a peaceful haven where they may unwind, focus better, and generally improve their health. Students are encouraged to practise yoga as part of their curriculum, at the institution's yoga centre where they also perform exercises and asanas. As part of SIP programme, all first-year students will visit Arivuthirukkoil at Aliyar after completion of two-day orientation programme for yoga component in the course: Wellness for Students.

SPORTS AND GAMES FACILITIES

The college has 12.5 acres playground for outdoor sports like Athletics, Cricket, Hockey, Football, Tennis, Volley ball, Basketball, etc. Indoor stadium with shuttle badminton court, table tennis, chess, and carom is available. A fulltime Physical director works to maintain the level of competency in students

through continuous up-gradation of the facilities and sports activities. College team takes part in Anna University Zonal and other inter collegiate competitions. Interdepartmental events are held on a regular basis during every academic year. During the Annual Sports Day celebration, the event's winners are awarded prizes.

GYM & FITNESS CENTRE

We provide a well-equipped gymnasium on campus because we value physical fitness and exercise. The gymnasium is furnished with modern exercise machines, weights, and training tools. It is supervised by qualified fitness instructors who provide guidance and support to students, ensuring safe and effective workouts. Our gymnasium is accessible to all students, allowing them to maintain their physical fitness and engage in regular exercise routines.

File Description	Document
Upload any additional information	View Document
Geotagged pictures	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: 76

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

4.1.4

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

Response: 17.02

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

2021-22	2020-21	2019-20	2018-19	2017-18
290.8	98.23	207.6	716.07	880.68

File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	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:

The college acknowledges the crucial role of a well-equipped library in improving the quality of education and learning for our students. MCET has established an Integrated Library Management System (ILMS) with AUTOLIB advanced integrated Library automation management software (The Advanced Edition V7.1.2 in Java platform) to ensure that the library has the latest technology and resources.

The ILMS has transformed the library into a modern, fully automated facility that provides access to a vast collection of books, journals, e-books, and other online resources. The system enables the management of the library's operations efficiently, including cataloging, acquisition, circulation, and inventory control. It also provides a user-friendly interface that allows students and faculty members to browse and search for resources seamlessly.

1. Online Catalog: the ILMS offers an online catalog that enables students and faculty members to search for resources based on author, title, subject, and keywords. This feature reduces the need for physical browsing and saves time by allowing users to find resources quickly and easily.
2. Circulation Management: The ILMS provides automated circulation services, which include borrowing, returning, renewing, and reserving items. The system automatically updates the user's record, making it easier to keep track of due dates, loan history, and fines.
3. Digital Resources: the ILMS provides access to digital resources such as e-books, ejournals, and databases. The system allows users to access these resources remotely, providing greater flexibility and convenience
4. Inventory Management: The ILMS provides comprehensive inventory management services that include acquisition, cataloging, and tracking of library items. This feature helps the library staff to manage the collection effectively and ensures that the resources are up-to-date and readily available for

users

5. Reporting and Analytics: The ILMS generates detailed reports and analytics on library usage, inventory, and other metrics. These reports help the library staff to identify usage patterns, popular resources, and other trends, enabling them to make informed decisions regarding the collection and services

In its entirety, the ILMS has made it possible to upgrade the library into a modern, effective, and user-friendly space that provides a large array of materials and services to teachers and students. MCET has been able to improve community's learning environment overall by streamlining library operations, increasing access to materials, and managing the collection more efficiently.

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

4.2.2

Institution has access to the following:

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
Institutional data in prescribed format	View Document
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	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: 14.61**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)**

2021-22	2020-21	2019-20	2018-19	2017-18
17.47	5.80	15.55	16.71	17.51

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	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:** 18.96**4.2.4.1 Number of teachers and students using library per day over last one year**

Response: 681

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 has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities

Response:

Computers in the campus are connected through network. Internet connection with a capacity of 300Mbps is available. The entire campus backbone network is made up of fibre optic cable networks. LAN connectivity is provided for all the computer and Seminar halls. Private IP Address maintained for each block. FortiGate 240D firewall is used for security purpose to Campus LAN. The Campus Internet

Traffic is monitored through a High Performance firewall for any possible spam, virus and intrusion detection. All the computers are networked using 10/100/1000 Mbps Ethernet LAN technology with manageable and unmanageable switches. Cisco ASR 1001X router is deployed as a gateway. End point computer systems are protected using K7 Antivirus software.

Wi-Fi Facilities are available in the campus (A Block, B Block and C Block). Aruba WiFi 205, Aruba Wi-Fi 215 and Unifi AP Ubiquiti UAP-AC-Pro series access points are deployed in the campus for WiFi connectivity. POE Switches are used for backbone WiFi network connection.

Totally 1724 computers are available in the campus with systems configuration: Core i7, Core i5, Core i3, 16GB, 8GB, 4GB, 2 GB RAM, 1TB / 500 GB / 320GB / 160 GB HDD, 18.5"/21"/24"

LED Monitor with Model - HP (280, Z2, 3330, Pro3090, DX2480, & 202), Dell Optiplex (390, 3010, 3020), Apple MAC Mini, Apple MAC Pro, iMAC. Rack based server are deployed in the campus for file transfer, Siemens Software Bundle, Cape Gemini Cameo, Cadence EDA Tools, Tally, Campus Application, Library management, Exam Cell Application, Campus License Software Servers. Totally 12 servers are available in the campus with configuration: Intel Processor, 160/64/32/16/8 GB RAM, 1TB, 500 GB HDD with RAID controller, Redundant power supply with model HP, DELL, CISCO & IBM.

The Microsoft Campus Agreement Volume License is being used on campus. Microsoft Office 365 solutions integrate online meetings and cloud storage. For mail server, Microsoft Outlook is utilized. Students, instructors, and support personnel each have their own email address. Totally 154 Laser, DMP, Copier based printers are available. Printers are deployed at computer labs, department office and admin office. Totally 131 Projectors are available in campus. Projectors are fixed in all class rooms using mounting kit.

CCTV Cameras are installed at A Block, C Block, Security Gate (I, II, III), DJB building, CC Hall and Hostel for security and monitoring purpose. Attendance of faculty and supporting staff is taken using a face reader, and biometric machines are installed at the information centre, A block, and security gate.

In last 3 years, Totally 745 computers were purchased with cost of Rs. 4,06,19,204/-. Computer systems configuration are Core i7, Core i5, 16GB, 8GB, 1TB HDD, 2GB/4GB/12GB graphic card, 24"/ 21.5" LED Monitor with Model - HP (280 and Z2), Apple MAC Mini, Apple MAC Book Air. In last 3 years, Totally 3 servers were purchased with cost of Rs. 10,63,695/-. Server configuration are DL 380/ QNAP TS, 8GB/32GB/64GB RAM, 1TB, 500 GB HDD with RAID controller, Redundant power supply with model HP.

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

4.3.2

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

Response: 1.93

File Description	Document
Upload any additional information	View Document
Student - computer ratio	View Document

4.3.3

Bandwidth of internet connection in the Institution.

Response: 750 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.4

Institution has the following Facilities for e-content development

1. Media centre
2. Audio visual centre
3. Lecture Capturing System(LCS)
4. Mixing equipments and softwares for editing

Response: A. All of the above

File Description	Document
Upload Additional information	View Document
Institutional data in prescribed format	View Document
Link for Additional information	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1

Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Response: 82.33

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

2021-22	2020-21	2019-20	2018-19	2017-18
1596.75	1220.91	1981.37	2228.05	2155.29

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	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:

MCET has established meticulous systems and procedures for preserving and utilizing physical, academic, and support facilities, which include the laboratory, library, sports complex, computers, and classrooms. These methods and procedures ensure that these facilities are managed efficiently and optimally.

LABORATORY MAINTENANCE

All the equipment and machinery of the laboratories are periodically maintained by the lab technicians. If the equipment/machinery is to be serviced during the warranty period, the supplier of the equipment/machinery will be intimated about the repair, and it will be serviced either in-house or in the supplier premises based on the nature of defect. If the equipment/machinery requires servicing after the warranty term, the technical staff attached to the respective laboratories service the equipment/machinery to the greatest extent possible. When it becomes unusable, they notify the faculty in charge of the laboratory, who conveys the situation to the HoD, who arranges for to be repaired.

MCET adheres to strict safety protocols to ensure the well-being of students and faculty in the laboratory. This includes providing safety equipment, conducting regular safety training, and implementing proper disposal procedures for hazardous materials. Laboratories are utilized for practical sessions, experiments, and research activities as per the curriculum. Schedules are prepared, and equipment is allocated accordingly to ensure smooth functioning and maximize utilization.

LIBRARY MAINTENANCE

Central library follows a systematic process for the acquisition, cataloging, and organization of resources. This includes regular assessment of the collection to ensure it meets the needs of students and faculty. the

library provides user-friendly interface and trained staff to assist students and faculty in accessing library resources. There are established borrowing policies, interlibrary loan services, and reference assistance to support research and academic needs. The library is well-maintained with regular cleaning, shelving, and preservation activities. Damaged books are repaired or replaced, and the seating area is organized for comfort and conducive study environment.

COMPUTER AND ACCESSORIES MAINTENANCE

Due to the large number of computers and networking, a separate team ITES (Information Technology Enabled Services) looks after the maintenance of computers and the networking. They maintain the computers and other associated accessories periodically and updates the OS (operating system) whenever it is demanded by the department. ITES maintains the break down maintenance form after rectifying the issue raised by the department.

CIVIL MAINTENANCE

Cleanliness & daily maintenance of the interior facility (classrooms, laboratories, library, hallway, and staircase) is done by housekeeping team of the institute under the supervision of the college maintenance engineer. The people appointed for maintenance of infrastructure, will report to the civil engineer of maintenance wing, any breakages and other maintenance requirements, and civil engineer arranges to get them rectified. Fire extinguisher maintenance is outsourced since refilling of the cylinder is done once in a year. The drinking water facility to the entire campus is through RO plant with capacity of 3000 liters/hour. Further there are about 35 nos. of water purifiers to supply drinking water at various service points. The RO plant and water purifiers are maintained by AMC.

ELECTRICAL MAINTENANCE

The Power supply, Generators and Electrical Repairs are handled by the electrical engineer supported by electricians to facilitate the campus with reliable electric power. The power is supplied by the Tamil Nadu Electricity Board with a peak load of 750 kVA, and it is augmented by six diesel generators capable of giving a backup power of 1377.5 kVA. The generators are maintained as and when the repair occurs, on a call basis; the day-to-day maintenance is done by the technical staff attached to the electrical maintenance wing. There are 21 UPS systems of 650 KVA capacity in the campus, for server rooms and the lab equipment needing uninterrupted power supply. They are normally maintained by an AMC. In case of maintenance of electrical fittings, department infrastructure co-ordinator communicates the maintenance issue to the electrical maintenance wing and they solve the issue and it is recorded by them in their maintenance register.

File Description	Document
Upload any 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: 54.6

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)

2021-22	2020-21	2019-20	2018-19	2017-18
1614	1717	1934	2036	2067

File Description

Document

upload self attested letter with the list of students sanctioned scholarships

[View Document](#)

Institutional data in prescribed format

[View Document](#)

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

[View Document](#)

5.1.2

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

Response: 12.09

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)

2021-22	2020-21	2019-20	2018-19	2017-18
390	406	393	502	378

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	View Document
Institutional data in prescribed format	View Document

5.1.3

Following Capacity development and skills enhancement activities are organised for improving students capability

- 1. Soft skills**
- 2. Language and communication skills**
- 3. Life skills (Yoga, physical fitness, health and hygiene)**
- 4. Awareness of trends in technology**

Response: B. 3 of the above

File Description	Document
Details of capability enhancement and development schemes	View Document
Any additional information	View Document
Link to Institutional website	View Document

5.1.4

Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Response: 100

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

2021-22	2020-21	2019-20	2018-19	2017-18
3335	3299	3480	3459	3555

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 adopts the following for 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
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: 57.73

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

2021-22	2020-21	2019-20	2018-19	2017-18
661	515	485	510	571

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document

5.2.2**Percentage of student progression to higher education (previous graduating batch).****Response:** 2.17**5.2.2.1 Number of outgoing student progressing to higher education.**

Response: 21

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	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:** 85.97**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**

2021-22	2020-21	2019-20	2018-19	2017-18
232	9	333	140	179

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

2021-22	2020-21	2019-20	2018-19	2017-18
256	12	378	166	195

File Description	Document
Upload supporting data for student/alumni	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years	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: 21

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

2021-22	2020-21	2019-20	2018-19	2017-18
4	7	5	2	3

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

5.3.2

Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

Response:

Students' Guild of Services (SGS) is an active student council functioning in the campus with an independent financial support. It works to affirm that every student acquires the finest conceivable

college experience.

SGS is built every year with a new-fangled team entailing President, Vice-President, Secretary, Joint Secretary, Treasurer, Women welfare coordinator, and members representing sports and other curricular and co-curricular activities. The selection process is grounded on applicant's performances in two rounds of Face to Face interview with senior faculty team and admin team.

SGS provides input to the development of policies and services that support students and advance the quality of learning through Programme Assessment Committee (PAC), Board of Studies (BoS) and Academic Council. SGS supports in department association(s) for imbibing recent trends and technologies to the students through seminar, workshop, hands-on training and industry expert interaction. The council, through their placement coordinator facilitates peer tutoring for recruitment deeds.

The management allocates Rs.23 lakhs every year to council, it is utilized for students' welfare and hones up the students' skills. SGS with 20+ students stand for their community and as a sole representation to the management under the guidance of Principal, Dean-Student Affairs and Faculty Advisor. It acts as the real voice of students by converting student's opinion into happenings for holistic growth of institution and pupils. Periodic meetings and discussions with class representatives pave the way to shortlist and curb the student's issues. In turn, SGS team meets the management as and when necessary to disseminate, discuss and seek constructive solutions and relay it to the students. In short, it boosts students' feedback and shares the college initiatives acquired from student's feedback. Student Induction Program, first year inauguration, inter & intra collegiate events, annual technical symposium and cultural events are planned, organized and managed by SGS.

SGS, as a SPoC, acts as a coordinator and collaborator for various clubs functioning in the institution. List of clubs adjourned to the SGS are:

- NSS
- NCC
- Muthamil Mandram
- Gyan Quiz Planet
- Film Club
- Readers Club
- Yuvasakthi Forum
- Science Mathematics & Technology Club
- Rostrum Club
- YRC / RRC

- Fine Arts Club
- Environmental Club
- Citizen Consumer Club
- MCET Studio
- Self Defence Club

SGS supports social welfare programmes such as, blood donation camp, health awareness camp and so on in association with respective clubs for in-house and communities. It marks its presence in all important events inclusive of co- curricular and extra-curricular to unleash the talents of the students. It also contributes in the following committee as an active member in Anti-ragging committee, Students Grievance Cell and Prevention of Sexual Harassment, IEEE, ISTE and Library Committee.

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

5.3.3

Average number of sports and cultural events / competitions organised by the institution per year

Response: 33.2

5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
45	14	40	39	28

File Description	Document
Upload any additional information	View Document
Report of the event	View Document
Number of sports and cultural events / competitions organised per year	View Document

5.4 Alumni Engagement

5.4.1

The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

Response:

MCET Alumni Association (MAA) was inaugurated on 26th January 2003 and registered under Tamil Nadu Societies Registration Act, 1975. Since its inception it has been active in promoting interactions and camaraderie among the alumni, students and the management. It strives to strengthen the bonds between alumni, students and faculty members by providing opportunities to share knowledge and experience, facilitating the exchange of quality ideas and perspectives. Currently, 15,700 alumni have enrolled in the association and act as the real ambassadors for the institution with 968 students inducted in MAA during 2022. www.alumni.mcet.in, a distinct website and Mobile App (MCETAA) are linking alumni to collaborate, enhance the network and interchange the thoughts. The mentorship program established with the title MCET One, tag lined “Get the Right Opportunity, Network & Exposure” is on wheels from 2018. The focus of the mentorship program is to unite alumni with students for career advancement and community building via one-to-one mentorship.

The campus chapter serves as a nodal centre for alumni association operations, with an executive body comprised of the President, Secretary, Vice President, Joint Secretary, Treasurer, and office bearers. It is actively engaged in creating amiable rapport with the alumni bearers with three more chapters functioning at Chennai, Coimbatore and Bengaluru from 2004, 2009 and 2011 respectively.

These chapters conduct alumni get-together and interaction for upholding rapport among them. Distinguished alumni from private sector, civil services, research, entrepreneur and social services are identified and awarded. Every year on Annual Day, a notable alumnus or alumna is recognised for their significant contribution to MAA. On continuous pace, alumni voluntarily consent to be resource person during Student Talent Enhancement Program (STEP), Student Talent Enhancement Program - Unleashing Potential (STEP-UP), Program Assessment Committee, Board of Studies, Higher Study Awareness Program, Mock Interview, 1st year inauguration, Student Induction Program, etc. Alumni extend their financial contribution to the association through alumni endowment fund. Knowledge and networking of alumni help the students to get placed / gain internship opportunities and assist students' live projects in their own company or with their employer. One credit courses / open electives have been designed based on the consolidated alumni feedback.

MAA organises gatherings and meetings on a regular basis to support the institution and students and to increase possibilities for students to acquire knowledge about current events and technology. List of meets conducted so far:

- Alumni Grand Reunion in July'17 @ Campus Chapter
- Alumni Meet in Jan'18 @ Campus Chapter
- EEE Reunion in Jan'19 @ Campus Chapter
- Annual General Body Meeting conducted in May'19 @ Campus Chapter
- MCA Reunion in Mar'19 @ Campus Chapter
- Alumni Reunion in Mar'19 & Dec'19 @ USA
- CSE Reunion in Dec'21 @ Campus Chapter

- Virtual Civil Alumni Meet in Apr'22
- Chennai Chapter Alumni Meet in Feb '23 @ Chennai
- Bengaluru Chapter Alumni Meet in April ' 23 @ Bengaluru

The key takeaway from these meetings is to render opportunity to advance their career, fulfill their interest, acquire more knowledge, network with successful alumni, with industry experts, with like-minded individuals, exposure to current trends, industry standards, and field learning.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

5.4.2

Alumni financial contribution during the last five years (in INR).

Response: A. ? 15 Lakhs

File Description	Document
Any additional information	View Document
Link for additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1

The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution

Response:

The vision and mission statements of the institution focus on providing quality technical education. Effective leadership is evident in various aspects of Institutional governance with the involvement of teachers in various decision making bodies.

Vision of the Institute:

We develop globally competitive workforce and entrepreneurs

Mission of the Institute:

Dr. Mahalingam College of Engineering and Technology, Pollachi endeavors to impart high quality, competency based technical education in Engineering and Technology to the younger generation with the required skills and abilities to face the challenging needs of the industry around the globe. This institution is also striving hard to attain a unique status in the international level by means of infrastructure, state-of-the-art computer facilities and techniques.

In order to ensure the realization of the Institute's vision through mission, various councils and committees are constituted as per the recommendation of statutory bodies. These councils and committees are composed of key stakeholders such as nominees of various statutory bodies, senior academicians from other institutions, industry experts, faculty members, alumni, local authorities, support staff and students. The members meet periodically to develop a framework for ensuring quality education, transparency and accountability in the academic and administrative processes and effective utilization of resources. Faculty members play a pivotal role by being a part of these decision making bodies as well as working towards the implementation of the decisions. The following are some of the prominent bodies which are functioning in the Institution.

Governing Council

The Governing Council approves the Strategic Plan, Vision & Mission, Short Term and Long Term Goals and the Budget based on the Strategic Plan. The Governing Council ensures that all decisions on the matters such as admission quality, new programmes offered, infrastructure, Teaching- Learning process and Placement activities are arrived to accomplish the Vision and Mission of the Institution.

Academic Council

The Academic Council is responsible for all academic activities such as, framing the academic policy, approval of courses, regulations, curriculum and syllabus. The council will involve faculty at all levels,

other experts and representatives of University and the Government.

Board of Studies

The Board of Studies is the basic constituent of the academic system of the college. Its functions include: framing the curriculum and syllabi, reviewing and updating it periodically, introducing new courses, determining details of continuous assessment.

Autonomous Finance Committee

The Finance Committee advises the Governing Council on financial matters. It prepares income and expenditure statements for fixation of tuition and others fees of the college. The Finance Committee acts as an advisory body to the Governing Council.

To support the governance of institution in implementing quality practices and ensure the attainment of vision and mission, the following committees are constituted comprising of faculty members and other stakeholders. Few major committees are listed below.

- 1.Result passing board
- 2.Programme Assessment Committee
- 3.Planning and Monitoring board
- 4.Anti-Ragging Committee
- 5.Internal Quality Assurance Cell
- 6.Academic and Administrative Audit Committee
- 7.Library Advisory Committee
- 8.Autonomous Core committee
- 9.Research and Development Cell
- 10.Grievance Redressal Committee

File Description	Document
Any additional information	View Document
Link for additional information	View Document

6.1.2

The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Response:

The institution follows decentralized and participative management in various spheres. Decentralized management is practiced by following an organizational structure wherein the administration team consists of the Secretary, Principal, Deans and Heads of Departments. The HoD is responsible for all the academic affairs of the department and looks after day to day activities related to teaching and aspects

related to Curriculum development, R & D, Consultancy and Infrastructure planning. Within each academic department, the tasks are decentralized and are taken care of by various coordinators such as:

- Programme Coordinator - Responsible in supporting the HoD for the routine activities of the department.
- Industry Academic Partnership Coordinator - Responsible for enhancing and sustaining the network with industries for mutual benefit.
- Research and Innovation Coordinator – Initiates activities pertaining to research and innovation such as interdisciplinary research, quality publications, applying for patents and research funding.
- Infrastructure Coordinator - Responsible for development of department infrastructure as needed.
- Exam cell Coordinator - Responsible for all examination related activities of the department – liaises with exam cell.

MCET has adopted participative management by establishing the Student body - Student Guild of Service (SGS). SGS acts as an interface between the student body and the College administration. SGS is a student body, exclusively made up of students from Second to Final year. Every year a new team consisting of a President, Secretary and about a dozen members to represent such areas as, sports and other curricular and co-curricular activities, is selected from the applicants who wish to serve. SGS selects a team of assisting volunteers and forms an Event Management Team (EMT). Every student is given equal opportunity to apply for the various positions. SGS conducts periodic general body meetings, consisting of the class representatives of all classes, to understand the issues related to student life in MCET. They meet with the management as necessary to inform, discuss and identify possible solutions to the student identified issues and relay them back to the students. Most of the college functions and the annual technical symposium are planned, organized and managed by SGS.

File Description	Document
Any additional information	View Document
Link for strategic plan and deployment documents on the website	View Document
Link for additional information	View Document

6.2 Strategy Development and Deployment

6.2.1

The institutional Strategic / Perspective plan is effectively deployed

Response:

The strategic plan guides the functioning of the institution and ensures academic excellence. Linking and collaborating with industries has been identified as one of the priority areas in the strategic plan for 2017-22 with the following objectives:

- Establishing links with institutions/industry for internships, on-the-job training, project work and

exchange of research institutions etc.

- Organize industrial training and internships for the third and final year students.
- Review memoranda of understanding with other institutions, universities, industries, corporate houses, etc.

Active collaboration with industry has been adopted for curriculum development and course delivery (particularly one-credit courses), student projects and consultancy. Several centres of excellence have been set up in collaboration with industry to train both teachers and students in the latest industry technologies. As a step to further strengthen industry partnerships, during the 2021-22 academic year MCET signed a MoU with Capgemini, a global leader that works with corporations to transform and manage their business through the use of technology. The MoU aims to establish a Product Lifecycle Management (PLM) technology lab on the MCET campus and provide training and internships for up to 100 mechanical and automobile engineering students at Capgemini Engineering India. In addition to it, MoU with Virtusa focuses to improve the quality of education for the students through the training of faculty members.

Recent Accomplishments:

- 1989 students completed internship.
- 40 MoUs with various organizations for the benefit of faculty and students.
- 103 students placed via Capgemini MoU.
- 25 students and two faculty members furthered through the Virtusa MoU.
- 18 Centres of Excellence fuels the thirst of internal and external students.

Major Courses offered through Centres of Excellence are listed below

- Design Engineering & Modeling
- Computer Aided Engineering
- Analysis & Testing
- Fatigue-FE Safe
- Matlab & Simulink – xPC Block sets for Rexroth products
- LABVIEW
- Enterprise Architect based UML Patterns
- Welder Training Programs
- Custom Analog and Mixed Signal IC Design
- Verilog – HDL modelling & FPGA implementation of digital systems
- System Design and Verification Using System Verilog – HDL
- FPGA implementation of Image & Signal Processing Algorithms
- Design and Hardware modelling of fundamental Electronics Circuits
- SOLID EDGE
- NX for Design
- Introduction to Finite Element Analysis with NX
- FEMAP–Finite Element Modelling using FEMAP
- PRODUCT DATA MANAGEMENT Introduction to Teamcenter
- DIGITAL MANUFACTURING TECNOMATIX SOFTWARE BUNDLE Plant Simulation Basics
- Factory CAD Basics
- Robcad Basics

- Classic Jack Basics
- Training on Diesel fuel injection system
- Training on Injection pump calibration
- Training on Automotive Electrical systems (Starters and Alternators)
- VFD and Servo System
- CFAE (Certified Factory Automation Engineer)
- Training Programme on Mechatronics and Automation
- Workshop on Industrial Pneumatics
- Workshop on Electro Pneumatics with PLC Systems

File Description	Document
Any additional information	View Document
Link for additional information	View Document
Link for Strategic Plan and deployment documents on the website	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:

Institution holds a well-organized tiered structure to upkeep any administrative proceedings that are vibrant and trustworthy with its commitments and can support operative resolution making. Institution endorses intelligibility in organizational structure to execute progressions that are dependable with effective resolution. The well-defined organization structure directed by Governing Council and is instituted as per the by-laws of concerned authority. The Governing Council is chaired by Chairman and assisted by the Correspondent and Secretary who acts as Management Representative. Principal is the Head of the Institution and administers all academic and allied divisions. Principal also holds the responsibilities of Dean - Student affairs. Under the guidance of Principal there are three other Deans: Dean - Academics and Autonomous, Dean - Research and Innovation and Dean- Industry Relations and Talent Development taking care of Academics, Research, and Industry related activities of the institution respectively. The Institute has established various committees at institute and department level for the effective functioning of the organization. Few major committees are listed below

1. Academic Council
2. Board of Studies
3. Autonomous Finance Committee
4. Result Passing Board
5. Programme Assessment Committee
6. Planning and Monitoring Board
7. Anti-Ragging Committee
8. Internal Quality Assurance Cell

9. Academic and Administrative Audit Committee
10. Library Advisory Committee
11. Autonomous Core Committee
12. Research and Development Cell
13. Grievance Redressal Committee

The operative motto of the institutional bodies is dynamic and proficient in generating noticeable outcomes.

In addition to these, well-defined policies and service rules such as recruitment process, guidelines for career advancement, guidelines for performance appraisal, leave rules, staff welfare schemes have been established and circulated for Appointment of Faculty, Working Hours, Late Coming, Permissions, Leaves -Absence, Conduct – Discipline, Dress Code – Decorum and Departmental Responsibilities.

Besides academic departments headed by HoDs, there are other exclusive divisions headed by a senior faculty such as Library, Sports division, Career and Placement Guidance Cell, Centre for Business Incubation and Entrepreneurship, Institution Innovation Cell, Industry Institute partnership Cell, Centre for Higher studies, Competitive Exam and Foreign Language, various clubs and associations, Controller of Examination Cell, Internal Quality Assurance Cell to Conceive, Design, Implement and Operate processes in order to continuously improve qualitatively and quantitatively in their respective domains that are functioning effectively under the guidance of Principal. Work culture of the Institution has been reinforced through the excellent team work involving the Governing Body of top management, Principal, Academic monitoring committee, HODs, teaching and supporting staff and students.

Human resource management is taken care by HR office headed by Chief Human Resource officer under the guidance of Principal, Secretary and Correspondent. Infrastructure development, estate maintenance, transports, hostel, security and other amenities are also functioning effectively under the supervision of Principal and Secretary with inputs from the administration team.

File Description	Document
Link to Organogram of the Institution webpage	View Document
Link for additional information	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
Institutional data in prescribed format	View Document
ERP (Enterprise Resource Planning) Document	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 and avenues for career development/ progression

Response:

The institution has employed several welfare measures for the benefit of teaching and non- teaching staff.

- **MCET Staff Family Benefit Fund** was implemented from May 2005. The features of SFBF includes:
 - Rs.100/- is deducted every month from the salary of staff. The management contributes the same amount (Rs.100/-) every year.
 - Rs. 25,000/- shall be paid to deceased staff member's family due to accidental demise.
 - Rs.5000/- shall be paid to meet funeral expenses of staff's family members.

NIA Educational Institution Employees Co-op Thrift & Credit Society.

- Thrift & Credit society functions from July 2015 onwards with Tamil Nadu Co- operative Thrift & Credit Society act.
- The aim of the society is to persuade the savings custom.
- Loan with nominal interest is sanctioned to the staff who have completed minimum 2 years of continuous service at MCET.
- Criterion for the maximum loan amount is either Rs.4 lakhs or 10 times of the take home salary whichever is less.

Staff of MCET is covered by the group insurance and accident safety insurance and the premium is paid by the management.

- On the accidental death of staff / permanent total disability / partial disability - Rs.4,00,000 (Star Health Accidental Insurance policy)
- An amount of Rs.1,50,000/- per annum can be claimed towards Staff Medical Expenses due to hospitalization from Star Health Insurance.
- Staff are eligible for a death benefit of average monthly wages drawn (calculation as per norms of PF) subject to a total ceiling of Rs. 7,02,000 (EDLI)
- Death benefit to staff members to a maximum of Rs.38,000 (EGI)

Other Staff Welfare Activities

- Superannuation benefits of EPF, Family Pension Scheme for the staff.
- Employee Provident Fund (EPF) and Employee State Insurance (ESI) implemented as per the respective acts.
- Gratuity Scheme is accessible for staff who have completed 5 years of continuous service.
- 50% of the cost will be borne by the institution towards the female staff overcoat.
- 50% cost of shoe or maximum Rs.500 provided to the Lab Assistants once in two years.
- Hygienic canteens are available for staff /Student.
- In-house doctor facility is available to provide medical services to staff/students on need.
- Quarters facilities available for staff.

Avenues for career development/ progression

- Ph.D course work – management provides 50% of salary, during full time course work period.
- Supporting staff are permitted to pursue B.E., (Part Time) with full salary and 50% of the tuition fees is provided by the management.
- Faculty Deputation is provided for abroad / industry training.
- Sponsorship is provided to Teaching / Non-Teaching staff for FDP participation

Beneficiaries details (2017 – 22)

- 128 staff have received gratuity amount.
- 51 staff have benefited by the Mediguard, Road safety, EGI and EDLI scheme.
- 247 staff have availed loans through Thrift society.
- 408 staff have received sponsorship for attending seminars, workshops and other faculty development activities.

File Description	Document
Any additional information	View Document
Link for 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: 33.48

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

2021-22	2020-21	2019-20	2018-19	2017-18
120	85	83	73	47

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

6.3.3

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

Response: 11.8

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

2021-22	2020-21	2019-20	2018-19	2017-18
10	20	19	4	6

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	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: 60.06

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

2021-22	2020-21	2019-20	2018-19	2017-18
167	165	145	129	125

File Description	Document
IQAC report summary	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1

Institution conducts internal and external financial audits regularly

Response:

Institution conducts Internal and external Audit on a regular basis. The Institution has established a mechanism for conducting Internal and External audits on the financial transactions every year to ensure Financial Compliance. Internal Auditing is an Independent, Objective assurance and Consulting activity designed to add value and improve an Organization's Operations. Internal Audit is conducted on quarterly basis by the Internal Auditor of the Institution. The audit team is given access to all documents, correspondence, Books of Accounts, Office Orders and any other information related to financial transactions as deemed necessary by them. Internal Auditor of the Institution thoroughly verifies all Receipts, Payment vouchers and bills.

The Internal audit team separately provides:

1. Details of serious audit observations, such as ineligible expenses, major lapses in internal controls, procurement procedures not followed, incorrect information submitted for reimbursements, difference between cash drawn and expenditure reported, procedural lapse, accounting lapse, accounting books & records not maintained etc.
2. Observations that are not serious in nature, but nonetheless require attention. Internal Audit team should further provide:
 - Comments and observations on the financial management records, systems and controls that were examined during the course of the review.
 - Deficiencies and areas of weaknesses in systems and controls and recommendation for their improvement.
 - Compliance with covenants in the financing agreement and comments, if any, on internal and external matters affecting such compliance.
 - Any other matters that the auditor considers pertinent.

External Audit is conducted once in every year by the external agency – P.K.Nagarajan & Co, Coimbatore - Chartered Account appointed by the Management of the Institution as per rules prescribed by the Government. Any queries in the process of audit would be attended immediately along with the

supporting documents within the prescribed time limits. All Utilization Certificates to various grant giving agencies are also countersigned by the Chartered Accountant. The Audited statement is duly signed by the Management and Chartered Accountant. The Institution did not come across any audit objection during the preceding years.

FY	Date of Audit
2017-18	20.06.2017 to 25.06.2017
2018-19	27.08.2018 to 01.09.2018
2019-20	09.09.2019 to 14.09.2019
2020-21	20.10.2020 to 27.10.2020
2021-22	25.09.2021 to 28.09.2021

File Description	Document
Any additional information	View Document
Link for additional information	View Document

6.4.2

Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

Response: 4.5

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

2021-22	2020-21	2019-20	2018-19	2017-18
2	0	1	0	1.5

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Annual statements of accounts	View Document

6.4.3

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

Response:

Institution follows various strategies for mobilisation of funds and optimal utilisation of resources. Tuition Fees collected from Students is the main source of funds for the institution. Besides this, funds are mobilized by the following means:

- Funds received from Management
- Grants received from AICTE, UGC and other funding agencies for research and infrastructure modernisation.
- Amount generated through consultancy activity offered by the faculty members to Industries / other Institutions.
- Examination Fees collected from students
- Interest from Bank deposits
- Fees collected through courses conducted by centres of Excellences & value added centres.
- Sponsorship sought from Individuals and Corporate for conducting Special events.
- Donations are invited for the purpose of instituting endowments for giving medals, awards, fellowships, research, etc.
- Cultivation of the Alumni and philanthropists to generously donate to the university.
- Attracting Government / Private Grants and CSR funds to the maximum extent possible.

The Management is spending money for the campus Infrastructure and department Infrastructure based on the need from each department and Section. A Finance Committee has been constituted to monitor the Optimum utilization of funds for various recurring and non – recurring expenses. Optimal Utilization is ensured by framing a Budget. Before the commencement of the financial year, budget proposal is collected from all departments. Consolidated Budget is scrutinized and approved by the Administrative Team. Accounts department and Purchase department monitor whether expenses are exceeding budget provision. Utilization of allocated funds are monitored periodically and reviewed at the end of the financial year.

Optimal utilization of resources

1. Effective utilization of infrastructure is ensured through the appointment of adequate and well-qualified lab technicians & system administrators.
2. Optimal utilization is ensured through encouraging innovative teaching-learning practices.
3. The available physical infrastructure is optimally utilized beyond regular college hours, to conduct remedial classes, co-curricular activities/extra-curricular activities, parent teacher meetings.
4. Library functions beyond the college hours
5. The college aims at promoting research, development, consultancy and such other activities, involving the faculty at various levels.

File Description	Document
Any additional information	View Document
Link for 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 visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle)

Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

Response:

IQAC functions as per the guidelines of UGC and works for institutionalizing the quality assurance strategies. The following two recommendations given by NAAC during Cycle 2 visit were implemented through IQAC initiatives and have been described below.

- Institute to maximize its autonomy in curriculum design and examination reforms
- Utilization of e-Resources and MOOC courses for blended teaching-learning

Institute to maximize its autonomy in curriculum design and examination reforms

Office of Controller of Examinations has taken several initiatives to ensure fair conduct of Examinations.

Precautions are being taken to minimize any error during Question Paper setting, External Review, conduct of examination, collection of answer books, dummy number allotment, valuation, result processing, issue of mark statements and degree certificates.

The Institution has initiated following Reforms:

- Integration of IT in all examination processes.
- Issue of Hall ticket with photograph and printed examination schedule with hall and seat number.
- Addition of security features (Water mark, invisible logo etc.) in statement of marks and grade sheet.
- System based Random Dummy number generation for End semester Answer scripts.
- Implementation of Co-creation mode of question paper setting.
- Implemented relative grading from 2021 batch onwards.
- Automatic question paper generation for internal tests.
- Bloom's Model is introduced as major component in question papers
- Fool Proof Security system is adopted by using electronic gadgets to rule out the chances of Question Paper Leakage.

Utilization of E-resources and MOOC Courses for Blended Teaching Learning

MCET – Learning Management System facilitates wide source of digital resources for most of the offered courses. MS Teams platform is used to conduct online classes and resource sharing since May 2020. The system was made functional from first year to final year students.

Content Delivery (Theory)

- Live and Recorded Sessions are conducted through MS Teams with inquiz and scripts
- Doubt Clarification Session for each Unit
- Collaborative/Active Learning Activities such as Brain Storming, Tutorial class, Group Discussion using Breakout Room
- Poll Questions during live session
- Gamification Quiz
- Team wise discussion/debate
- Analytical Classes using Digital pad for problem solving

Content Delivery (Practical)

- Programming Virtual Lab (eLearning@mcet Moodle with Jobe Server, Hacker rank)
- Conduct programming Labs such as Python, C, C++, Java, SQL
- Simulation-based labs for Circuit/Core Stream students (<https://www.vlab.co.in/>)

Assessments

- Internal Assessments are conducted through MS Teams
- Marks/Rubrics based Evaluation of Assignments with grade book
- Laboratory-Cycle Test (eLearning@mcet Moodle and MS Teams)
- End Semester Exam (eProctoring Portal -Examly)

Online Courses & Interactive presentation tools

- Online Software courses (IITB Spoken Tutorial Courses)
- Online courses as Credit Transfer in Curriculum (NPTEL Courses)
- Other online Courses (IITB, Coursera, Udemy, Edx etc)
- Mentimeter – Engage students during the class.
- Build interactive presentations using the presentation builder.
- Collect polls, data and opinions using smart devices.
- Get insights with trends and data export.

MOOC resources were used to offer programming based courses. In Python Programming Laboratory course, the experiments were conducted using online compiler/ eLearning@mcet Moodle. The students can write the source code in the browser and verify the results. Faculty can run test cases to review the program.

File Description	Document
Any additional information	View Document
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:

CASE 1: PDCA process and Quality Assurance Audit System

The institution has defined its own audit system namely “Quality Assurance Audit System” which periodically monitors the Plan, Do, Check and Act stages in Teaching Learning Process (TLP), all other academic aspects, administrative activities and its achievements.

The TLP audit is carried out at the end of every semester to improve the quality of PDCA process. The TLP audit covers the following aspects:

S. No	Parameters
1.	Lesson plan
2.	Time Table
3.	Course Material
4.	Quality of Internal Assessment Question paper
5.	Assignment Questions
6.	Assessment pattern and marks
7.	Lab Manual
8.	CO attainment
9.	Special initiatives
10.	Faculty feedback and Best Practices

The internal audit committee for TLP has been constituted with senior faculty members in the cadre of Professor nominated by Head IQAC with the approval of Principal. Yearly once, brain storming on audit parameters will be performed by the Head IQAC before the commencement of the quality audit. This is followed by discussions on processes, checklists, form templates, findings of previous audits, methods of presenting audit findings and submission of the reports. Based on the remarks submitted by auditors, the auditee shall update the remarks and further action taken report has been submitted to IQAC. Based on the auditors finding on strength and weakness of TLP, IQAC organizes training programs for faculty through OBE division for the improvement in Teaching Learning process.

The Academic and Administrative Audit (AAA) is carried out at the end of every academic year to improve the quality of Academic, Research and extension activities. The AAA audit covers the aspect of the parameters specified by NBA and NAAC which is mentioned below.

S.No	Parameters
1.	Curriculum Design
2.	Academic calendar

3.	Academic Performance(Assessment and Attainment)
4.	Student projects and internship
5.	Research and Development
6.	Extension activity
7.	Budget
8.	Library
9.	Clubs and committees
10.	Infrastructure utilization

The external audit committee for AAA has been constituted with senior faculty members in the cadre of Professor from Government/Government aided institutions nominated by Principal.

An opening meeting is convened by Principal and Head IQAC along with external members with respect to audit check list and rubrics. The auditors will rate the parameters on a Likert's scale with four levels. Weakness and deficiency are identified based on the remarks submitted by auditors and further corrective and preventive action is taken.

CASE 2: Product based Learning

Product Based Learning (PBL) is a unique Teaching Learning method that has been developed since 2017 to impart the product design life cycle to every student. This is being implemented as a prototype for the courses B.E – Mechanical Engineering and B.E – Electrical and Electronics Engineering. The idea behind Product Based Learning is “Profound interconnectedness” that aims at cultivating the awareness of interdependency at multiple levels of our curriculum that would lead us to the transformation from teacher centric to learner centric approach.

The following aspects are the main focus of transforming ideas to students and inspiring them to understand product design life cycle during their course of study especially during first four semesters of their B.E/B.Tech programme:

- PBL transforms engineering students by inspiring them to think differently about themselves as learners, collaborators and leaders.
- PBL leads students to master core academic content and builds critical thinking, problem solving, collaboration, communication and self-management skills.
- PBL enables teachers to make a difference in their students' lives academically, socially, emotionally and to experience the joy of teaching.

As PBL is a relatively new concept, it was decided to seek the assistance from TVS motors, IBM, Forge Accelerator and VVDN Technologies to train faculty members in small groups in problem identification, brainstorming, idea generation, planning and execution procedure.

Figure 6.5.2 Phases of PBL

File Description	Document
Any additional information	View Document
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)**

Response: All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Paste web link of Annual reports of Institution	View Document
Link for additional information	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:

Dr. Mahalingam College of Engineering and Technology is a co- educational engineering institution which promotes gender equalities in all aspects. Admissions of students are carried out in accordance with the norms prescribed by the AICTE and State Government. During the last five years an average of 26.3% female students pursued their education. Various facilities and amenities are available in the campus for female students. A Separate ladies hostel is available in the campus with a capacity of 714 beds with well-furnished rooms. Facilities like internet browsing, canteen and Photocopier center are available for the convenience of the residents.

Safety and security

- 24 X 7 security support is available in the campus with CCTV surveillance cameras, security guards along with a security Inspector
- Medical care centre is available within the campus to ensure wellness of staff members and students
- Biometric attendance system is followed for monitoring the attendance of hostel female students and staff members.
- Anti-ragging Committee, Grievance Redressal Committee, Prevention of Sexual Harassment Committee and Disciplinary committee is functioning to ensure safety and security in the campus for students and faculty.
- All the buildings in the campus have stability certificate and fire extinguishers to ensure safety.

Counselling

- A separate female counsellor is available to provide guidance for female students and staff members
- A female Physical Education Instructor is available to motivate the female staff and girl students to participate in sports activities without compromising the academic activities.

Common Rooms

- Common waiting room and rest rooms are available for the female staff and students.

Any other relevant information

Women empowerment cell has been established to ensure security and safety of female students and staff, with senior female faculties as members. A special committee consisting of senior female faculty, female doctor and NGO representation are functioning for the representation of sexual harassment of female students. There has been no issue raised regarding this matter right from the inception of the

institution.

A forum for women “YuvaSakthi” is functioning in the institution since 2004. The forum has been registered officially and renamed as “Yuvasakthi Welfare Association” (Reg.No.36/2021). International Women’s Day is celebrated on 8th March every year as a prestigious function in the campus. Best outgoing female students and best performing woman in the society are identified every year and bestowed with YuvaSakthi award and honoured during Women’s Day celebration in the Campus. In commemoration of the 10th year of its functioning, Endowment was created and scholarships are provided to the female students on merit-cum-means basis every year. Female students excel in their performances in both curricular and co-curricular activities.

Among 336 teaching and supporting staff members nearly 133 of them are female, 24 are Ph.D holders and currently 24 female faculties are pursuing their research programme. Female faculties are actively involved in research and received funding from Government organizations. They hold positions in the institution in several levels such as HoDs, staff selection committee member, Club / Cell in-charges and board of studies member.

File Description	Document
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
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: B. 3 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:

1. Solid waste management: Academic buildings and its premises are cleaned regularly and its wastes are segregated and disposed accordingly. One side printed papers are used for internal correspondences. The food waste is used for the production of biogas. The Hu-Methane Gas Plant generates the Bio-gas of about 60m³ per day. The usage of number of LPG cylinders in the hostel kitchen are minimised by the use of generated gases through Hu-Methane gas plant.

2. Liquid waste management: Liquid waste from the points of generation like the canteen and toilet, etc., is let out as effluent into a proper drainage facility to avoid stagnation. The waste water collected from hostel (used water from sinks, bathrooms, or laundry) is used to irrigate the plants.

3. Biomedical waste management: An effective way of biomedical waste management system is functioning in Health Care Centre. This includes, setting up waste segregation stations with clearly labelled bins as Yellow waste, Red waste, Blue waste and White waste containers. A MoU is made between Kovai Bio Waste Management (P) Ltd and Health Care Centre for the process of collection, reception, storage, transportation, treatment, disposal and handling any form of Bio-Medical Waste in compliance with Bio Medical Waste Management. Specified category of bio wastes are kept with respect to colour of bins and taken care by Kovai Bio Waste (KBW) Management (P) Ltd. It leads to the minimized environmental impact, promote resource recovery and create a culture of sustainability in campus.

4. E-waste management - The major e-waste such as written-off instruments/equipment, old version computers, printers, electronic gadgets/circuits, kits have been written off on regular basis and condemned devices and materials from computer lab are sold to the e-waste management companies/buyers in Coimbatore. All the miscellaneous e-waste such as CDs, batteries, fluorescent bulbs, PCBs, and electronic items are collected and delivered for safe disposal. Minor repairs are addressed by the lab technician with the support of staff members whereas the major issues are repaired by professionally trained personnel. A constituted committee provides recommendations and suggestions on disposal of e-waste in aspects of to whom to dispose and when to dispose.

5. Waste recycling system: Efforts have been taken to recycle and reuse the waste generated inside the campus. The answer sheets used by the college students, old record and waste papers are cut into pieces with a paper shredding machine and then procured for Weighbridge weighing in the presence of the office staff. These paper wastes are sent to Sripathi Paper and Boards Pvt Ltd, Bhavanisagar, a paper mill with a pulping capacity of 70 tonnes per day to make new paper.

6. Hazardous chemicals management: Hazardous chemicals are kept in a store room allocated in the

chemistry laboratory and strong acids like HCL, HNO₃, H₂SO₄ are kept in the sand to protect human health, the environment, and ensure compliance with regulatory requirements.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geotagged photographs of the facilities	View Document
Any other relevant information	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
Link for any additional 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
Details of the Software procured for providing the assistance	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 holds a strong commitment to adhering to the standards set forth by governing organizations. It recognizes the importance of creating a diversified environment and actively promotes inclusivity by embracing diversity in various aspects such as culture, region, language, community, socioeconomic background, and more. In line with this mission, the institution established the ArutchelvarVidyaSakthi (AVS) Scholarship during the grand celebration of Arutchelvar's 93rd birthday in 2015. This scholarship program was designed to assist students in overcoming socioeconomic obstacles and recognize their exceptional talent. Each year, a total of 400 meritorious students are selected to receive the prestigious ArutchelvarVidyaSakthi Scholarships, with a total value of Rs. 70 lakh. Among the recipients, 100 deserving students in first-year engineering programs are chosen to receive this esteemed award.

The institution actively engages in various social programs through its NCC and NSS Units. These units organize and participate in initiatives related to social issues, contributing to the welfare of society at large. Additionally, the institution celebrates national holidays, cultural events, Independence Day, Republic Day, and Yoga Day with great enthusiasm, fostering a sense of patriotism and cultural awareness among its students.

One notable aspect of the institution is its commitment to accommodating religious and cultural diversity. Muslim female students are given the freedom to dress religiously on campus, demonstrating the institution's respect for religious practices. Moreover, the institute honours and supports female students through the Yuvasakthi forum, which awards scholarships to deserving female students on International Women's Day each year.

Catering to the diverse culinary preferences of students, the institution's ARYAAS Cafeteria offers North Indian snacks, providing a taste of home for those hailing from the northern regions of the country. This initiative adds to the institution's efforts to create a comfortable and familiar environment for students.

Recognizing the importance of language proficiency and the potential linguistic barriers faced by

students, the institution has established a language study center known as the Language Learning Centre (LLC). The LLC offers a comprehensive LSRW (Listening, Speaking, Reading, and Writing) program to all first-year, second-year, and third-year students, supplementing the First Year English Paper. These learner-centred training programs are conducted in a state-of-the-art Language Lab, ensuring effective language learning experiences.

Additionally, the LLC provides instruction for an internationally recognized language certification named the Business English Certificate (BEC) offered by Cambridge University.

To equip engineers with the necessary skills to thrive in a globalized world, the Centre for Higher Education offers comprehensive training and guidance to students to pursue their higher studies, both nationally and internationally, as well as competitive exams such as UPSC, GATE, and other government exams. It also provides training in foreign languages such as German and Japanese. Additionally, we offer specialized coaching to crack the Graduate Record Examinations (GRE), International English Language Testing System (IELTS), and Test of English as Foreign Language (TOEFL) exams. By facilitating language proficiency in these languages, the institution empowers its students to seize global opportunities and broaden their horizons.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document
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:

The values are inculcated among students by offering Professional skill courses like Wellness for Students, Universal Human values 1 & 2, and Employability Skills as a part of curriculum with credits to all students. Consumer Citizen club, National Service Scheme, National Cadets Crop, Youth Red Cross, Red Ribbon Club and Environmental clubs team up through other social bodies and organize programmes to create awareness among students and employees to realize their rights, duties, and responsibilities. The various programmes organized are as follows:

- National Cadet Corps has organized an election awareness event, Swachh Bharat activities, Helmet awareness for the benefit of local schools and general public. Constitution day was celebrated to commemorate the adoption of the Constitution of India. Blood donation camp was organized to create awareness on health and hygiene among students and the common public. Swachh Bharat plogging activity at roadside, Swachhta Hi Sewa to create awareness of managing garbage that created an opportunity to benefit nearby schools and villages.

- National Service Scheme has been working with commitment contributing towards the welfare of local community by organizing free medical camps, vaccination camps against Covid -19, RT-PCR test camp were conducted. Aadhaar Camp, programmes emphasizing traffic awareness, road safety awareness, tree plantation camps, drive against drugs awareness programmes and presentation on global warming to inculcate values and responsibility of a citizen.
- YRC and RRC clubs have jointly organized blood donation, haemoglobin, blood pressure and blood sugar camp in collaboration with Primary Health Centre (PHC) and IMA. YRC club had initiated an event at nearby Schools by planting Hibiscus, Pomegranate, Amla, Guava and Custard Apple saplings highlighting the importance of planting tree for next generation and to preserve nature. Disaster management program was organized by RRC in collaboration with Indian Red Cross Society demonstrating the first aid to be carried out at the time of an emergency.
- The environmental club organized programmes like awareness on terrace farming to enhance sericulture, organic farming, and tree plantation to create environmental awareness to create interest among students in preserving our environment.
- The Citizen Consumer Club celebrated world consumer rights day, National consumer day, National Youth Day, National consumer protection day raising global awareness to demand consumer rights are respected and protected. Citizen Consumer Club has been collaborating with Civil Supplies and Consumer Protection Department (Govt. of Tamil Nadu), FEDCOT and other organizations to create awareness on consumer rights and adulteration issues by food safety officers with rapid test in food products by demonstration. World food safety day, celebrated in association with consumer association creating awareness on food adulteration, roles, duties and responsibilities as citizens. The road safety awareness programme was conducted emphasizing ways to avoid accidents and injuries while on the road.
- Along with National festivals like Independence Day, Republic Day, Teachers Day, International Yoga Day were conducted to impart the value of being humane. Guest lectures and events conducted created opportunity for students to widen their knowledge which can help them work towards the betterment of society in later stages of life.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	View Document
Any other relevant information	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:

The institution is dedicated to fostering a vibrant and inclusive community by actively participating in the commemoration of local, national, and worldwide holidays, events, and festivals. It recognizes the importance of these occasions in promoting cultural awareness, fostering a sense of unity, and instilling a deeper understanding of one's heritage and national pride among students.

To facilitate the celebration of various festivals and events, the institution hosts a range of cells and clubs. These cells and clubs come together to organize and commemorate significant occasions, such as Independence Day, Republic Day, International Women's Day, International Yoga Day, Teacher's Day, National Education day, Cultural day, National Voter's day, National Unity day, World Food safety day, World Consumers Right day.

The institution provides substantial resources, including dedicated workforce, financial support, facilities, and necessary supplies, to ensure the successful execution of these events. On Independence Day and Republic Day, impressive drill parades are organized, featuring the participation of National Cadet Corps (NCC) students. These parades serve as a display of discipline, patriotism, and unity among the student community, fostering a strong sense of national pride.

Even in challenging times, such as during a pandemic, the institution remains committed to observing national holidays and important events. Measures are taken to ensure adherence to safety protocols while celebrating occasions like Teacher's Day and National Education Day. The institution recognizes the significance of these events in honouring educators and promoting the value of education in society.

To mark the birth and death anniversaries of eminent national figures, the institution invites renowned speakers to deliver soul-stirring speeches. These speeches serve as a means of paying tribute to the legacy of these leaders, inspiring students, and reinforcing the values they stood for.

In the face of unique circumstances, the institution has adapted its approach to ensure the continuation of

traditions. For instance, the third International Yoga Day was celebrated online on June 21, 2017. Students actively participated by practicing yoga at home and submitting videos of their sessions to the institution. These videos were then shared on the official platform, allowing students to connect virtually and collectively celebrate the benefits of yoga.

On the occasion of International Women's Day, the institution takes the opportunity to recognize and honour outstanding women who have excelled in various fields. The institution presents the Yuvasakthi award to the most accomplished woman in society. By acknowledging these exceptional women and sharing their stories, the institution aims to inspire other women, instil confidence, and provide direction to aspiring young women. Overall, the institution's commitment to commemorating festivals, events, and national holidays reflects its dedication to fostering a sense of unity, cultural appreciation, and pride among the student community. Through its diverse range of activities, the institution encourages students to embrace their heritage, engage in meaningful celebrations, and develop a stronger sense of patriotism and social responsibility.

File Description	Document
Geotagged photographs of some of the events	View Document
Any other relevant information	View Document
Annual report of the celebrations and commemorative events for the last five years	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

1. Title of the Practice

Industry Institute Interaction (I3) through Cooperation, Collaboration and Co creation (C3) for Engagement, Efficiency and Effectiveness (3E)

2. Objectives of the Practice

The institution envisions to produce globally competitive workforce and entrepreneurs. Industry connect is vital for understanding the needs outside the academic system. Institution strives hard to interact closely with industry using multiple methods at three different levels namely; cooperation, collaboration and co creation, where co creation is the highest. The objectives of the practice are:

- Gain industry insights from experts through various forums and activities.
- Partner with industries to establish centres, run customized initiatives.
- Design, deploy and assess programs jointly with industry that are beneficial to multiple stakeholders.

3. The Context

In India, industry institute interaction has always remained a challenge due to the wide gap between the two. Systematic interventions are required to narrow this gap with different levels of commitment from both depending on the activity. While both are interested in narrowing the gap, clear plans, and their execution with commitment from the institutions creates confidence required for stronger interactions and partnerships. The activities associated in building and maintaining successful industry institute partnerships are highly resource intensive for both in terms of time, money, and people. Business and academic leadership level agreements and sponsorships are essential to promote these activities which lead to long term benefits. Normally the partnerships initiate at the lowest level of cooperation and slowly grow into higher levels.

4. The Practice

Higher education, especially in engineering must cater to the needs of industry to sustain the growth of India. Autonomous higher educational institutions have a greater role to play in this since the academic freedom given by the University Grants Commission is primarily to cater to diverse needs of industry through courses and programs. The institute actively pursues:

- Professional competence development of students and faculty.
- Placements, internships, events involving industry/industry body.
- Learning and development with industry/industry body as partners and government schemes
- Startup ecosystem related, promoting entrepreneurship.
- Alumni interactions, support, and networking.

Institute deploys the C3 (cooperate, collaborate, cocreate) for (industry, institute, interaction) I3 model at 3E (engagement, efficiency and effectiveness) levels. As part of cooperation the institute engages with industry for invited talks, internships, placement drives, curriculum review in board of studies, regulation formulation in the academic council and similar activities. In collaboration the engagement extends to, efficiency of relationship through consultancy and research projects, implementation of 2 –2/4 – 8 /16 internship model, establishment of centres, trainings for specific needs, execution of activities as part corporate social responsibility and similar. In co creation both industry and institute jointly develop and deploy programs for the benefit of learners either at the institute or at the industry with high effectiveness. These programs, especially related to skills identified by the sector skills councils in the country are easily benchmarked or aligned to the national skill qualification framework thereby making it contextual at the national level.

The three levels cooperation, collaboration and cocreation are based on the extent of resource commitments involved for both the institute and industry. The levels offer the advantage having large number of relationships and its positioning clearly indicating the commitment that needs to be exercised for the relationship. While an institute prefers either collaboration or cocreation, industry makes the choice regarding the levels. The institute has been successful in implementing this model for industry institute interaction over the years. Location of the institute, quality of school education and expectations

for industry pose challenges to the operation of the model. Also most of the activities in the model can be executed by autonomous institutions or universities, while the affiliated institutions will have other constraints. Quick wins are required to convince industry especially when the relationship is naïve.

5. Evidence of Success

During the last five years

- 544 guest lectures/webinars/invited talks were given by industry experts
- 458 subject matter experts have contributed in statutory bodies
- 6 new centres established over and above the existing
- 35 STEP/ STEP UP/ Conclaves were organized
- 475 training programmes have been done by the centres
- 500+ industries offered internships to students
- 1989 students completed internships
- 96 students completed graduation through collaborative educational programs
- 1808 employees of industries were trained by the institute

6. Problems Encountered and Resources Required

It has always been a challenge to convince industry to engage with institute especially at the higher levels of the model. However, with rigor in execution of activities, relationships with industries usually migrate to higher levels. Learner attitude determines the sustenance of relationships. Often the relationship suffers due to lack of proper attitude of the learner in industry environment. Careful monitoring and coaching by faculty members is essential to alleviate this problem.

The resource requirement for the practice depends on the level. Higher the level, higher the resource in terms of time, money, and people. Also, the commitment of the same from the industry increases at the higher levels. The results indicate that the resources committed are worth it both for the institute and industry.

7. Notes (Optional)

The 2 –2/4 – 8 /16 model of internship is appreciated and well received by core industries. This model emphasizes the principle of same student with the same industry. 2 weeks, 4 weeks of summer terms of 2nd and 3rd year respectively and 8 or 16 weeks of 8th semester are the internship periods. Faculty members will accompany students in the industry unless denied by the industry. Repeated and long duration interaction between the potential employee and employer in this model, makes near perfect matches.

BEST PRACTICE 2

Title of the Practice

Offering Courses for Professional Skills

Objective:

Professional Skills courses, shortly PS courses, are those courses that are offered with the objective of enabling the students of the college imbibe all those skills that are needed to be successful in their professional and personal life. These courses are offered for developing the behavioural competencies of students.

The Context:

The regular courses are technical oriented. Those courses help acquire knowledge and skill on technical subjects. They develop technical expertise that is much needed for becoming a proficient engineer in the career – either as an employee in a company or as an entrepreneur.

Whereas, the PS courses bring in the appropriate mental awakening among the students in understanding, assimilating and demonstrating lifelong all those skills and virtues that bolster their strength and spirit to perform their duties to the highest level excellence, fairness and satisfaction to self and all concerned at all times.

Technical orientation

The Practice:

All PS courses are part of curriculum. They are considered as practical courses, each with one credit. One course per each semester offered up to sixth semester.

The courses offered under professional Skills were Sports for Wellness, Promotion of Students' Wellness, Personal Effectiveness, Ethical and Moral Responsibility, Teamness and Interpersonal Skills and Campus to Corporate. Each PS course has a syllabus that details the course outcomes for the course, detailed unit-wise content for coverage, method of assessment and evaluation. The syllabus for each professional course has been designed with inputs from the subject matter experts and industry personnel.

As a part of practice, the Basic kayakalpa meditation course with certification will be introduced in Student Induction Programme (SIP) for all first years. During the regular schedule the Listed below are some parameters from the physical, mental, social and psychological domain which will be measured and an individual score card will be generated to individual student:

Physical domain	BMI, flexibility, Energy level(endurance), muscle strength, Grooming
Mental domain	Perceptions, attention/concentration, Memory, gunas* , Mental agility
Psychological and social domain	fear of failure, peer influence,

personal relationship, self motivation,

Being impulsive

Measurement for students

Sample score card:

Since MCET pioneered the Professional skill courses from AY2014-2015, it became easier to implement the Universal Human Values course as a part of curriculum prescribed by AICTE model curriculum. The designed six courses were modified accordingly in 2019 curriculum as four courses viz., Wellness for Students, Universal Human Values, Employability Skills 1: Teamness and Inter-Personal Skills and Employability Skills 2: Campus to corporate. The practices made in each course are listed below:

- **Wellness for Students**

The Wellness for Students program is designed to identify students' strengths, weaknesses, and opportunities in their pursuit of academic, career, and personal goals. It aims to establish a well-articulated roadmap for achieving these goals and teaches effective time management techniques for completing tasks on schedule. The course assists students in allocating time for activities that align with their career aspirations, adding value to their professional development.

One of the key components of the course is helping students conduct a personal SWOT analysis, enabling them to understand their strengths, weaknesses, opportunities, and threats. By doing so, they can formulate a strategic plan and set goals using methodologies such as SMART goals (Specific, Measurable, Achievable, Relevant, and Time-bound), Inclusive goals, Positive stretch, Pain vs. gain analysis, and Gun-point commitment. These methodologies help the students to shape their tangible and non – tangible goals and be proactive and reactive based on the scenarios.

Moreover, the course enables students to distinguish between SMART goals and NON-SMART goals when it comes to advancing their careers. It introduces principles like the Pareto 80-20 principle for prioritization of goals; Time quadrants to effectively prioritize weekly tasks based on priority labels such as urgent, not urgent, important, non-important tasks; the glass jar principle for managing time efficiently and handling procrastination; handling time wasters and mastering the art of saying 'NO' when necessary.

A special initiative has been taken in this course by introducing students to physical wellness, such as warm-up exercises, joint movements, and simple asanas, to help them experience the importance of good physical health. In addition to this, the course exposes students to yoga practices for mental well-being and helps them understand the benefits of good food and good sleep in becoming not only physically fit but also mentally sound.

- **Universal Human Values**

Universal Human Values course exhibits an enlightened awareness of the values that encompass various aspects of human existence, including the self, family, society, nation, and nature. These values are not just abstract concepts but are actively embraced by students through individual and group activities that foster reflection, sharing, creativity, teamwork, and ultimately growth.

At the core of Universal Human Values lies the recognition of the significance of self. Students engage in introspection, encouraging personal reflection, and subsequently sharing their insights with others. This self-awareness cultivates a deeper understanding of one's own values, aspirations, and purpose, leading to personal growth and the development of a strong moral compass.

Moreover, Universal Human Values emphasize the importance of family. Students engage in activities that promote introspection and reflection on the values upheld within their familial units. Students partake in activities that encourage introspection and reflection on the broader social, cultural, and environmental contexts in which they exist. This awareness allows for a greater understanding of the interplay between different value systems, fostering tolerance, empathy, and respect for diverse perspectives and backgrounds.

All students attend this course regularly and get to know about themselves through self-exploration and also about their acquaintances of how to behave in teams with unity through involving in group discussions. It is hoped that they would be able to apply what they have learnt to their own self in different day-to-day settings in real life.

- **Employability Skills I :Teamness and Inter-Personal Skills**

Employability skills are the major metric of any professional to embrace success in his professional life. The course has codified the set of topics and activities that enables them to practise in their college life and this practical educational effort leads them to right path. The ES-1 is the red carpet for them to lead them into arena of topics that enlightens them with the perfect attributes of a professional. It is highly essential to incorporate in the mindset of the students with these skills so that it would enable an open mindedness for the students to move out of their shell and walk in the path of success. Employability Skills –I: Teamness and Interpersonal skills is offered to the V semester students of all the departments to train the students to enhance the communication skills, presentation skills, interpersonal skills and team ethics and develop positive attitude, good body language along with dressing and grooming. Appropriate metrics are used to measure these skills.

- **Employability Skills II : Campus to corporate**

Soft skills are life skills that are the need of the moment for any professional. Soft skills create completeness for a person's personality. This course stresses the importance of soft skill for an engineer and helps them to acquire it for their completeness. Campus to Corporate course is offered to the VI semester students of all the departments to make them ready for industry ready engineers. In this course, the students were trained in various aspects to work effectively in the industry environment. They are well trained in CV preparation, emotional intelligence, leadership skills and time management. They become more qualified for employability when they do group discussion and take mock interviews.

Evidence of Success:

All students attend “wellness for students” course regularly and maintain a personal journal. The journal logs the behaviours and their patterns emanating from the inputs in this course. The students steadily come to understand that their wellbeing improves as is evidenced in their BMI, behaviour, emotional and psychological aspects. By embracing professional skill courses, individuals contribute to the creation of a harmonious and inclusive world. As outcomes of these courses the students are able to,

- Reflect on values, aspiration, relationships and hence identify strengths and weaknesses.
- Set well articulated goals for academics, career, and personal aspirations.
- Establish the road map to realize the goals.
- Apply time management techniques to complete planned tasks on time.
- Practice techniques to promote physical, mental and social wellbeing
- Value human relationships in family and society and maintain harmonious relationships.
- Respect nature and its existence for survival and sustainability of all life forms and hence practice conservation of nature
- Appreciate ethical behavior as a result of value system in personal and professional situations
- Demonstrate effective communication attributes as part of their skills and facilitate presentation & public speaking skills
- Identify and explore the true self and handle negatives.
- Develop interpersonal skills and to groom as a professional
- Explain the importance of Nonverbal skill set to attain perfection
- Build teamness and its ethics to facilitate corporate working
- Understand the emotions and necessity to handle them.
- Build effective resumes to project the positives to be employable.
- Facilitate collaborative work environment and to engage in healthy agreements for building person's professional facet.
- Demonstrate leadership skills.

Apart from qualitative outcomes, quantitative outcomes are evidenced in the good number of students placed every year.

Academic year	2017-18	2018-19	2019-20	2020-21	2021-22
Number of outgoing students placed	661	515	485	510	571

Resources:

Resources such as Yoga hall, well equipped Gym are available. Professionally designed workbooks are available for the courses. Expert instruction is also available for these courses. The faculty members are trained to facilitate the orientation and handle these courses.

Yoga and Meditation Practice for certification

File Description	Document
Best practices in the Institutional web site	View Document
Any other relevant information	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:

One area distinctive to the institution's priority and thrust is establishing and leveraging "Centres of Excellence in partnership with Industries/Corporates", to realize the vision. Institution has been constantly increasing the number of centres and their facilities.

Centres are equipped with state-of-the-art facilities and focus on specific technology areas. Centres serve as hubs for knowledge sharing, collaboration, specialization, research, innovation, training, capacity building, networking, and partnerships. Established in partnership with leaders in the respective technology domains, centres provide valuable opportunities for students, staff, faculty, youth, and employees of corporates to learn and grow. Centres provide/offer/conduct training programs, courses, projects, testing services, certifications, etc., to different types of audiences/clients. Centres enable students and faculty to experience international standards and facilities within the campus. All centres offer value added course(s) and one credit courses to benefit the students. Value added courses are available in the cafeteria model, to be pursued by the interested students beyond the class hours and during summer/winter breaks at the centres. Some centres undertake execution of programs under corporate social responsibility and government funded skill development programs as part of the Skill India Mission. Through these skilling programs in Pradhan Mantri Kaushal Vikas Yojana (PMKVY) scheme unemployed youth secure gainful employment and students get skilled. Centres also provide upskilling and reskilling of persons employed in industries. At present there are 18 centres in the campus, each with its own focus area with around 12,000 direct beneficiaries in total so far.

MCET - BOSCH REXROTH Regional Centre of Competence focusses on Programmable Logic Controllers (PLC) and Human-Machine Interfaces (HMI) in Industrial Automation Technologies and Fluid Power Technology.

MCET - TUV RHEINLAND Centre for Advanced Training (Welding) focuses on Gas Metal-Arc Welding (GMAW), Shielded Metal-Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW) and Non-Destructive Testing (NDT).

MCET – ALTAIR Centre focuses on Computer Aided Engineering (CAE) and Finite Element Modelling (FEM).

MCET - ASIC Centre focuses on Custom Integrated Circuit Design for Analog and Digital applications using tools such as CADENCE.

MCET – Centre for Design Analysis and Testing focuses on mechanical component testing and certification for automobile and manufacturing industries.

MCET – KEYSIGHT Centre for Radio Frequency Communication Systems focuses on Advanced Communication and RF System Design, Design and Analysis of Microstrip patch antenna for wireless

applications.

MCET - SIEMENS Centre for Digital Manufacturing focuses on digital manufacturing with software tools like NX-CAD, Teamcenter PLM, and Plant Simulation.

MCET – HARITA TECHSERV Centre focuses on computer-aided design (CAD) with CATIA V6 and CAD modelling using Creo 2.0.

MCET – TUV RHEINLAND Centre for Advanced Training (Automobile Technology) focuses on Electronic Assist Vehicle Stability Control Systems, Autotronics, and Two/Four-Wheeler Automotive Systems.

MCET – BOSCH Joint Certification Centre focuses on After Market Services of Automobile Engine Starting System, Automobile Alternator, and PE Type Fuel Injection Pump.

MCET - MITSUBISHI ELECTRIC Centre for Factory Automation focuses on Programmable Logic Controllers (PLC) and Human-Machine Interface (HMI) in factory automation.

MCET JANATICS Centre of Excellence for Mechatronics and Automation focuses on Pneumatics, Electro pneumatics, Programmable Logic Controllers, Sensors, Mechatronics Systems, and Automation technology.

MCET- SWELECT Centre for Solar PV Training and Research focuses on Solar PV technology.

MCET – BOSCH Artisan Training Centre focuses on woodworking and carpentry.

MCET – FANUC Centre for Advanced Manufacturing and Robotics focuses on robotic welding and manufacturing with CNC Machines.

MCET – EMBDES IoT Centre focuses on design tools and Printed Circuit Boards (PCBs) using Arduino and Altium EDA tool.

MCET – EKKI International Water Technology Centre focuses on water technology and pump application engineering.

MCET - Electronics Manufacturing Skill Training Centre focuses on electronic circuit design, soldering, and PCB design.

Over the years these centres have resulted in students getting trained in emerging areas of technology and performing well in placements. They also get employed in niche technical areas in core companies after completing trainings. Trainings in these centres are jointly issued by the institution and partnering industry hence valued high in the market. Centres have been creating social impact as well when training unemployed youth as part of various government skill development programs from National Skill Development Corporation and Tamil Nadu Skill Development Corporation and with funding from corporates under the corporate social responsibility. These youth get gainful employment in the region after completion of these training programs. Industries in the region also use the centres to train their manpower and execute projects. The offerings of the centres are aligned to the National Skill Qualification Framework with the qualification packs of the respective trades forming the basis for

programs and courses. The institution leverages the centres to impact the skill and competence of students, staff, faculty, youth in the region and industry personnel. The institution is open to conducting training programs for students and faculty from other institutions which do not have such facility. This gesture has been welcomed by institutions which use these facilities. Centres offer training, consultancy and testing services thereby generating revenue. Centres continue to conduct workshops with hands on sessions to facilitate the learning in the focus areas. The facilities at the centres are continuously upgraded to make it contemporary with the market with investments into hardware, software, and manpower training as well. The institution aims to establish more such centres and augment the existing facilities at the centres to strengthen the ties between the institute and the industry, providing students with a competitive edge in their career prospects while continuing to upgrade the faculty and staff competence to serve the community and nation at large.

File Description	Document
Any other relevant information	View Document
Appropriate web in the Institutional website	View Document

5. CONCLUSION

Additional Information :

- MCET is accredited by NAAC with “A” Grade (Highest grade) during 2013-2018 & Re-accredited with “A++” Grade (3.53/4 - Highest grade) during 2018-2023 proclaimed as the only engineering institution in Tamil Nadu with the highest grade in both cycle 1 & 2.
- 234 highly competent faculty members with teaching and industry expertise work at MCET at present. More than 80 faculty members hold doctoral degrees.
- The institution has around 44 certified research guides and 33 internal and external faculty members are pursuing their doctoral degrees.
- MCET has established a progressive tie-up with industries like VVDN, SACL, TVS Motor Company, etc. for students’ internship and research activities.
- MCET signed the first-ever Collaborative Education Programme for Mechanical and Automobile Engineering students with Capgemini Engineering in South India. It results in training and placement opportunities for 90+ students (including 30+ girl students) in Capgemini Engineering India, every year.
- Central Library has a collection of 65181 books, 202 international journals, & 637 online national and international journals.
- Launching new programs meeting the industry requirements.
- Secured 45th rank and 37th rank among Government and Private Sector in India and Private Institutions by T- School Data Quest Survey 2023
- A blend of youth and experienced teams are in institution functionaries.

Concluding Remarks :

The governance system of MCET is lucid with the framed Vision and Mission. The core values of MCET include Equity, Transparency, Creativity, Team Work, Environment Sustainability, Staff Development, and Women in Development accentuating the holistic growth of an individual. By keeping its curriculum current and dynamic and including areas such as ethics, gender, human values, the environment, and sustainability, MCET hopes to draw students from a variety of backgrounds and talents and offer a well-rounded education. MCET offers good infrastructural facilities, taking into account the increasing demands for people in terms of the expanding engineering domain, the need for space for academic, extracurricular, and co-curricular activities, as well as the need for space for administrative and amenity needs. The MCET has a research policy that directs, inspires, and implements a variety of research facilities and activities. Additionally, the Board of Studies, Academic Council, and Governing Council with sufficient financial provisions review and finalize guidelines and proposals for new facilities. Students have opportunities to demonstrate their abilities, carry out student-led projects, and take part in academic and administrative committees.

MCET envisions to be a renowned Institution on par with premier institutions through attaining efficacy in teaching-learning, faculty quality, outreach activities, graduation outcomes, and perception of stakeholders. To enhance internal operations and adapt to shifting demands and needs, feedback mechanisms have been established and implemented.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.1.2	<p>Percentage of Programmes where syllabus revision was carried out during the last five years.</p> <p>1.1.2.1. Number of all Programmes offered by the institution during the last five years. Answer before DVV Verification : 21 Answer after DVV Verification: 16</p> <p>1.1.2.2. How many Programmes were revised out of total number of Programmes offered during the last five years Answer before DVV Verification : 20 Answer after DVV Verification: 16</p> <p>Remark : From 1.1 metric input is edited .</p>																				
1.2.2	<p>Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).</p> <p>1.2.2.1. Number of Programmes in which CBCS / Elective course system implemented. Answer before DVV Verification : 21 Answer after DVV Verification: 16</p> <p>Remark : Input is edited from 1.1 EP.</p>																				
1.3.2	<p>Number of value-added courses for imparting transferable and life skills offered during last five years.</p> <p>1.3.2.1. How many new value-added courses are added within the last five years Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>115</td> <td>69</td> <td>67</td> <td>78</td> <td>136</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>65</td> <td>59</td> <td>67</td> <td>60</td> <td>70</td> </tr> </tbody> </table> <p>Remark : Iput is edted from data template..</p>	2021-22	2020-21	2019-20	2018-19	2017-18	115	69	67	78	136	2021-22	2020-21	2019-20	2018-19	2017-18	65	59	67	60	70
2021-22	2020-21	2019-20	2018-19	2017-18																	
115	69	67	78	136																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
65	59	67	60	70																	
1.3.4	<p>Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)</p> <p>1.3.4.1. Number of students undertaking field projects / internships / student projects Answer before DVV Verification : 2579 Answer after DVV Verification: 2519</p>																				

Remark : Input is edited as? One student involved in multiple Field works and/or internship and/or student projects should be counted as one

2.1.1 Average Enrolment percentage (Average of last five years)

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1025	732	941	938	1022

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
948	732	941	938	1022

2.1.1.2. Number of sanctioned seats year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

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)

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
383	281	381	465	475

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
331	281	374	465	393

Remark : Input is edited from the data template excluding the excess students in OBC than sanction seats.

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)

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

86	85	79	71	64
----	----	----	----	----

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
43	42	35	35	32

Remark : mere list is not considered as input is edited according to it.

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)

2.4.3.1. Total experience of full-time teachers

Answer before DVV Verification : 1760.583

Answer after DVV Verification: 1746

Remark : only full time teacher is considered here less than one year experience excluding that input is edited .

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

2.5.1.1. Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
17.5	20	16	19	19.5

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
18	21	16	19	19.5

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

3.1.2.1. The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1.01	2.82	0.96	8.89	5.02

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
---------	---------	---------	---------	---------

1.01	.96	0.96	6.55	5.29
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3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years

3.1.3.1. The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
16	8	19	14	30

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
8	4	5	7	15

Remark : Input is edited from supporting documents.

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

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
2.26	31.87	81.59	32.15	59.91

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
1.33	31.87	81.59	32.15	59.91

Remark : Input s edited from clarification documents.

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
6	9	6	6	6

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
5	10	6	6	15

3.2.4.2. Number of departments offering academic programmes

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
11	10	11	11	11

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
11	10	11	10	11

Remark : Input is edited from clarification documents.

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

3.3.2.1. Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
104	85	90	80	95

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
75	50	60	50	65

Remark : Input is edited from supporting documents.

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following:

- 1. Inclusion of research ethics in the research methodology course work**
- 2. Presence of Ethics committee**
- 3. Plagiarism check through software**
- 4. Research Advisory Committee**

Answer before DVV Verification : A. All of the above
 Answer After DVV Verification: B. 3 of the above
 Remark : Input is edited from clarification documents.

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

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
130	150	128	103	106

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
24	150	128	103	106

Remark : considering only scopus ISSN no.input is edited from data template.

3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last five years

3.4.4.1. Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
66	79	71	39	86

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
39	31	21	8	11

Remark : Input s edited from data input considering only ISBN no.

3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
47	11	37	24	22

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
00	00	00	00	00

Remark : certificate of appreciation is not considered input is edited according to it.

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

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
22	16	45	24	16

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
19	8	11	11	8

Remark : Input is edited from clarification documents excluding the programs which are included in the metric.

3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

3.7.2.1. Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
3	4	2	7	24

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
3	4	2	7	21

Remark : Input is edited by excluding the Mous which ae not in the assessment year.

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)

4.1.3.1. Number of classrooms and seminar halls with ICT facilities

Answer before DVV Verification : 76

Answer after DVV Verification: 76

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)**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)**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
17.25	5.781	14.91	16.39	17.32

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
17.47	5.80	15.55	16.71	17.51

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability**1. Soft skills****2. Language and communication skills****3. Life skills (Yoga, physical fitness, health and hygiene)****4. Awareness of trends in technology**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: B. 3 of the above

Remark : Input is edited from clarification documents.

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
4	7	37	19	18

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
4	7	5	2	3

Remark : zonal awards are not considered here input is edited according to it.

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

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
42	46	45	34	61

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
10	20	19	4	6

Remark : less than five days for fdp re not considered,input is edited according to it.

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).

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
177	165	155	129	125

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
167	165	145	129	125

Remark : excluding repeat count and one day FDP programs.

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**

Answer before DVV Verification : A. 4 or All of the above

Answer After DVV Verification: B. 3 of the above

Remark : Any three of the above is considered.

2.Extended Profile Deviations

ID	Extended Questions																				
1.1	<p>Number of programs offered year-wise for last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>21</td> <td>20</td> <td>21</td> <td>21</td> <td>21</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>16</td> <td>16</td> <td>17</td> <td>17</td> <td>17</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	21	20	21	21	21	2021-22	2020-21	2019-20	2018-19	2017-18	16	16	17	17	17
2021-22	2020-21	2019-20	2018-19	2017-18																	
21	20	21	21	21																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
16	16	17	17	17																	
2.3	<p>Number of students appeared in the examination conducted by the Institution, year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>3434</td> <td>4401</td> <td>3599</td> <td>3609</td> <td>3716</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>3335</td> <td>3299</td> <td>3480</td> <td>3459</td> <td>3555</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	3434	4401	3599	3609	3716	2021-22	2020-21	2019-20	2018-19	2017-18	3335	3299	3480	3459	3555
2021-22	2020-21	2019-20	2018-19	2017-18																	
3434	4401	3599	3609	3716																	
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