SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

DR. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY

UDUMALAI ROAD, MAKKINAICKENPATTI POST, POLLACHI, COIMBATORE
DISTRICT.
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), located in Pollachi is a private, self-financing, co-educational engineering college, established in 1998 to commemorate the 75th birth year of Padmabhushan. Arutchelvar. Dr.N.Mahalingam. He is a well-known educationalist, industrialist and crusader for social cause. His son, Dr.M.Manickam, instituted MCET under the patronage of Nachimuthu Industrial Association (NIA), which runs NINE educational institutions, with 11500+ students on rolls.

Dr.M.Manickam, the Chairman, holds an MBA from University of Michigan. He is Executive Chairman of Sakthi Sugars, Chairman and Managing Director of Sakthi Auto Components and Chairman of NIA Educational Institutions. He has imbibed the great virtue of serving the society from his father and this propels the college.

Sri.M.Balasubramaniam, the Vice Chairman, holds an MBA from University of Notre Dame. He is Vice Chairman and Managing Director of Sakthi Finance.

Sri.M.Hari Hara Sudhan, the Correspondent holds a Master's Degree in Automotive Engineering from University of Bath. He is Executive Director of ABT the parent company of the Sakthi group. Being tech savvy he implements various innovative measures in the college.

Dr.C.Ramaswamy, the Secretary of NIA educational institutions obtained Ph.D. from Madras University for his research on Industry Institute Collaborative model. With rich experience in the field of technical education he brings to reality the vision of the management.

Dr.A.Rathinavelu, the Principal, has a Ph.D. from NIT Trichy. He takes care of the day-to-day administration. He is with MCET since 1999 serving in various capacities in the developmental aspects of the college.

Vision

True to its vision "**We develop globally competitive workforce and entrepreneurs**", MCET (affiliated to Anna University, Chennai and approved by All India Council for Technical Education, New Delhi) offers TEN Under Graduate programmes (B.E./B.Tech. Civil, Mechanical, Automobile, Production, Mechatronics, Electronics and Communication, Computer Science, Electrical &Electronics, Electronics & Instrumentation and Information Technology), SIX Post Graduate programmes (M.E. CAD/CAM, Applied Electronics, Computer Science, Communication Systems, Structural Engineering and MCA) and FIVE Ph.D. programmes thereby rendering its best in educating the youth and extending the services for the local community development for the past TWO decades. Over the years the college has registered an exceptional growth. Today it has its alumni occupying prestigious positions in eminent companies. The college is constantly nurturing entrepreneurship through various activities and provides support for start-ups, generating entrepreneurs for the society.

- ○ UGC granted autonomous status to the college in 2011-12 and for the extension of autonomy the UGC expert team visited the institute on 18th and 19th December 2017.

- The National Assessment and Accreditation Council (NAAC) accredited the college with 'A' grade (CGPA of 3.61 on four point scale) for a period of five years from January 2013.
- The National Board of Accreditation (NBA) has accredited all the eligible UG programmes.

The National Institutional Ranking Framework (NIRF) has placed the college in the rank band of 101-150 among the top engineering colleges and adjudged it among the 200 best institutions under overall category across India for the year 2017.

Mission

The college realizes its vision through its mission explicated in the statement, **"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"**.

Achievements of the college after autonomy (2011-12) stand testimony to its mission.

- 960 UG intake
- 150 PG intake
- 10 UG programmes
- 6 PG programmes
- 5 research centres
- 1108 research publications (International/national journals, conference/seminar proceedings etc.)
- 19 funded research projects
- 223 seminar/conference/workshops organized
- 906 faculty attended seminar/conference/workshops
- 48 extension activities
- 56 Consultancy projects
- 238 Faculty
- 56 Faculty with Ph.D.
- 80290.37 sq.m. Built Area
- 1745.76 sq.m. Library, 400 seating capacity, working all 365 days
- 16272/3420 Books/Titles
- 172/333 Print/Online Journals
- 90% Average Graduation Percentage
- 65 % Average Placement Percentage
- 44.6 acres campus
- 12000+ prospective youth graduated
- 48 Memorandum of Understanding/Agreement with Industries/Universities
- 15 Centers/Centers of Excellence
- 94 Laboratories
- 200 Mbps Internet Bandwidth
- 2000+ computers

Value added education is a unique feature of MCET. This has enabled students from rural background get

exposure to the latest technological trends across the globe. This feature evolved over a period of time and now manifests in various forms in curriculum, courses and certifications.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1. Implementation of Outcome Based Education (OBE) and Choice Based Credit System (CBCS)
2. Stakeholder input driven curriculum
3. Professional Skills (PS) courses to address behavioural competencies
4. One credit courses in emerging areas
5. Industry Attachment Programme, Internship, Industrial visit, Student Talent Enhancement Programme to provide industry inputs
6. Elective courses on specific domains relevant to industry
7. Use of ICT for teaching and student data management
8. Teaching supplemented by NPTEL, SWAYAM and MOOC
9. Faculty teaching and technical competency development programmes
10. Induction of adjunct faculty
11. Promoting research and consultancy through incentives
12. Research centers recognized by Anna University
13. Centers/Centers of Excellence in emerging areas
14. Classrooms with LCD projectors, internet facility and support for tablet based teaching/assessment
15. Collaboration with industry to facilitate research, consultancy and learning on diversified domains
16. Well stacked and spacious library stimulating self-learning
17. Student-computer ratio of 2:1
18. Government/management scholarships
19. Professional, soft-skills training and career guidance to students
20. Consistent placement record
21. Active participation of students in co-curricular & extra-curricular activities
22. Alumni as facilitators for technical lectures
23. Support and guidance of management leveraging its strong industrial background
24. Comprehensive strategic plan and well defined organizational structure
25. Support for staff development
26. Well-designed learning spaces
27. Clean and green campus
28. Collaborative efforts to protect environment and conserve energy
29. Student forums to stimulate societal consciousness
30. Societal projects for technology transfer, product development, awareness and skill based training

Institutional Weakness

1. Designing multi-disciplinary professional curriculum (biology, psychology, sociology, commerce, accountancy, finance) to enable students pursue higher studies abroad
2. Offering special courses for differently-abled students
3. Increasing number of recognitions (awards) from international agencies for both faculty and students
4. Sustaining measures to motivate faculty for filing patents

5. Recruiting faculty with teaching and research experience from institutions abroad
6. Enhancing the smart class room facility
7. Improving number of placements in core engineering companies
8. Obtaining external funding for research and development activities
9. Creating awareness on environment and societal issues to local community

Institutional Opportunity

1. Acceptance of re-designing of curriculum to prepare engineers fit for industry
2. Availability of industry relevant projects and training to students through Centres of Excellence.
3. Measures of statutory bodies promoting outcome based education
4. Benchmarking of certifications and accreditations internationally
5. Willingness of industry to interact and collaborate with institution for preparing role-ready engineers
6. Scope for multi-disciplinary research by forming inter-institute research group among sister institutions.
7. Emergence of continuing research in the domains of teaching-learning and behavioral skills development
8. Growth of start-ups and the support mechanisms available
9. Availability of communication, information and E-Governance technology to build smart campus
10. Support for upgrading of infrastructure to keep pace with technological advancements
11. Availability of core engineering internships with stipends leading to placements
12. Availability of alumni support for institutional development such as industry connect, campus placement, internship etc.
13. Willingness of industry to train faculty and support curriculum development
14. Availability of external funding from government and non-government bodies
15. Conducive atmosphere for networking with institutions and industries to work in the area of energy and environment

Institutional Challenge

1. Facilitating student learning through English, owing to their migration from learning through mother tongue in schools
2. Implementing mandatory internship
3. Addressing gender equity & sensitivity and their auditing in syllabus
4. Attracting students and faculty from other states and nations
5. Meeting the learning demands of the heterogeneous group of students in the class
6. Equipping the faculty with newer methods of teaching learning
7. Providing financial support for programmes and projects requiring huge grant
8. Increasing the utilization of hard copy resources in the library by students
9. Motivating the students to use the available sports and yoga facilities
10. Helping students to choose the career path through guidance and counseling
11. Aligning the lateral entry students into the main stream
12. Up-gradating skill of non-teaching staff
13. Aligning institution strategy to the highly volatile market situation
14. Allotting time for various student activities addressing environmental & social cause
15. Developing behavioral changes among students

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

MCET collaborated with industries, institutions and domain experts and has developed the Outcome Based Educational (OBE) model since 2014. With the inputs from key stakeholders and the graduate attributes, POs (Programme Outcomes) and PSOs (Programme Specific Outcomes) are derived for each programme in alignment with the Vision and Mission of the department and PEOs (Programme Educational Objectives). The curriculum, course outcomes (enabling attainment of POs and PSOs) and the syllabus after review by Board of Studies, is presented to the Academic Council for approval and then implemented.

The college implemented Choice Based Credit System (CBCS) for all UG programmes from the academic year 2016-17 enabling students to learn at their own pace. Also one credit courses offered in a cafeteria model, select units of select courses earmarked for self-study and electives (professional and open)offer the provision for students to learn as per his/her own choice in the domain of interest.

SIX Professional Skills (PS) courses are offered with the objective of enabling the students imbibe behavioral skills to be successful in their professional and personal life. PS courses are designed with the help of subject matter experts and delivered with an initial orientation covering the syllabus followed by weekly practice classes for review and reflection using exclusively designed workbooks and journals.

The college follows a systematic approach in collecting (surveys, committee reports, and statutory meetings) and analyzing feedback on various aspects of education from all key stakeholders. Based on the analysis, suitable actions are carried out periodically.

Teaching-learning and Evaluation

All the programmes continuously attract students from all over Tamil Nadu and more than 80% of the seats are filled every year.

Bridge courses and remedial classes help address the diversity of learners at different levels.

Procedures for teaching-learning are articulated in the quality system manual and the OBE practitioners' guide. Student engagement is ensured by adopting active learning techniques, experiential learning and problem solving. Lecture sessions with tablet computers and MCETONE APP enable digital teaching learning process. MCET Edu developed as an app in-house is used for attendance and student progress monitoring anytime anywhere. Inpods in cloud is used for calculation of attainments of outcomes.

There are 251 well qualified faculty members with an average experience of around 10 years. More than 20% of the faculty members have a Ph.D. Faculty members and students use NPTEL, SWAYAM and MOOC; also a good number complete online courses.

Questions are set by faculty and experts in accordance with the Bloom's level of course outcomes thus making direct assessment of outcomes feasible. The college follows continuous comprehensive evaluation with absolute grading. Degree is awarded to candidates by university based upon recommendations of the result passing board. High levels of quality and transparency is maintained in all examination processes.

Continuous comprehensive evaluation with absolute grading is followed for all programmes. At the end of the specified duration of the programmes 90% of the students obtain their degrees. The programme outcome attainment on an average for UG programmes is 2.4 out of 3.

Research, Innovations and Extension

The R&D cell has representations from all academic departments for promoting and coordinating various activities in research and development. The cell functions under the guidance of the R&D Management Committee headed by the Principal. Sufficient research facilities exist in departments. Five departments are recognized as research centres by Anna University. International/National conferences, workshops and seminars are organized for promoting research and innovation.

The college has received around Rs.150 lakhs as research funding from various agencies during the period 2012 to 2017.

Centre for Innovation, Business Incubation and Entrepreneurship (CIBIE) nurtures and supports student innovations. It organizes awareness programmes by successful entrepreneurs and provides support for start-ups.

25 recognized research supervisors are guiding 83 research scholars. Faculty members have published 546 research papers in journals and have presented 562 papers in conferences since 2011. They have also authored 13 books.

56 consultancy projects worth Rs.68.1 lakhs have been carried out during the period 2012 to 2017.

Providing Urban amenities in Rural Areas (PURA) is a notable programme initiated by the former President of India, Dr. A.P.J. Abdul Kalam. He launched Sakthi PURA on 19th Dec' 2006. The Extension Services Department of MCETis involved in offering training in agriculture, engineering and awarenessin health, sanitation as part of PURA to the people of 32 villages.

15 Centres/Centres of excellence have been established by partnering with renowned industries providing opportunity for students and faculty to upgrade their knowledge.10 faculty members have been sponsored for visits abroad for collaborative efforts.

Infrastructure and Learning Resources

The institution has a total built area of 80290.37 sq. m. There are sufficient numbers of class rooms each equipped with LCD projection facility; some also have internet access for using tablets. There are 94 well equipped laboratories. There are 10 air-conditioned seminar halls. The centenary centre is a multi-purpose hall with a seating capacity of 3500. The campus and examination halls are under CCTV surveillance. The controller of examinations office uses an exclusive multi-level security system and IT facility.

The college has separate hostel blocks for boys & girls, buses, other vehicles, book depot, DTP center, reprography, Travel desk, indoor, outdoor sport facilities, gymnasium, dispensary, book shop, bank, ATM, post office, cafeteria, hotel, yoga hall, water treatment plant, power back up, etc.

The large and spacious central library has elaborate collection of books, journals (print and online), CDs and

DVDs covering various domains of study, apart from impressive arrays of gratis collections. Library has e-resources facility to access online journals, DELNET and NDL. The Gandhi study centre is a part of library housing books, photographs, CDs and DVDs of spiritual leaders.

The college has 2000+computers, 170+printers, 20+servers, 40+ Wi-Fi devices, 30+routers of good configuration. The central computing facility has 130 computer systems with internet and printing facilities kept open till 10 pm. The campus is Wi-Fienabled. The college has 200Mbps internet connectivity.

Electrical and civil maintenance teams are involved in the periodic maintenance activities of physical infrastructure. ITeS team maintains IT infrastructure.

Student Support and Progression

CPG (Career Planning & Guidance) cell provides career guidance on higher studies, competitive exams and placements to the students. Student's handbook is published annually and there is a provision for online access and is available on the institute website. The various committees and activities are informed to students through this document. The Grievance Redressal Committee addresses grievances raised by students. The Students Guild of Services (SGS) acts as a bridge between the students and administration. Student counseling cell facilitates counseling and guidance for the students.

Students receive financial assistance from State Government, Institution (merit-cum means) and AVS (Arutchelvar Vidya Sakthi) scholarships. All students are covered under the Medical and Group Insurance schemes.

Academic departments conduct remedial classes for the slow learners and bridge courses as and when required. The Language lab conducts programs to develop soft skills and proficiency in English language. Students also publish articles in Crusade, an e-magazine of the institution.

The students are encouraged to participate in different technical and other co-curricular events held on campus, elsewhere in the country and abroad. Department of Physical Education encourages students to participate in sports/games competitions and fitness activities. Sports materials/equipment and financial support are provided to students. Students also involve in various club, professional society and department association activities.

The alumni and alumni association chapters have been actively involved in various activities. Alumni take part in various committees, statutory body meetings, student interactions and provide inputs and feedback.

Governance, Leadership and Management

The functioning of the Institution is guided by vision and mission statements which align with the objectives of technical higher education. Academic and Administrative planning and functioning is ensured through a well-defined organizational structure. Faculty members and other stakeholders play an active role in institution development through their participation in various committees.

The strategic plan for the institution is prepared by a core team of faculty members under the guidance of the administrative team. This along with inputs received in various committee meetings have contributed significantly to the improvement of academic quality. E-governance strategies have been adopted in various

areas of operation.

Several welfare measures have been implemented for teaching and non-teaching staff including financial support for qualification up-gradation, sponsorship for professional development activities, group insurance, accident safety insurance etc. Well defined mechanisms have been implemented for staff recruitment, performance appraisal and grievance redressal.

Financial committee constituted by the management takes care of the financial management of the institution. Policies and procedures are available for resource mobilization through management funds and students' fees. Effective budgeting practices help in efficient resource planning and optimum utilization. The institution accounts are audited at regular intervals through internal and external audits.

The Internal Quality Assurance Cell (IQAC) functioning in the Institution ensures periodic review of all academic processes. IQAC plays a pivotal role in proposing, reviewing and sustaining new initiatives for quality enhancement.

Institutional Values and Best Practices

The core values (Equity, Transparency, Creativity, Team Work, Environment Sustainability, Staff Development and Women in Development) of the institution intrinsically drive all the processes and activities of the institution. Such practices are in place purely due to the lineage of the management that is known for its benevolence, deep understanding of human values and steadfast commitment to social uplift.

The women folk of the college, both staff and students are treated at par with the other gender. The Yuvasakthi celebrations bring to the fore the achievements of the women every year.

Campus is clean, green, energy conscious (solar water heating, solar PV, LED lights etc.) and a plastic free environment.

The NSS and NCC wings of the college engage with youth of the nearby villages and voluntarily serve them. Rural development through appropriate technology (units on solar tunnel based copra drying) is an important outreach activity.

Offering of UG programmes through the outcome based educational model, language proficiency development, career guidance through CPG cell, value added education, skill building through one credit courses, development of Professional Skills through courses in the curriculum, use of ICT for teaching and learning are some of the best practices of the institution.

Industry Institute Partnership makes the institution distinct in the region. Collaborative Educational Programme, Centers of Excellence, Industry Attachment Programme, Internships, Student Talent Enhancement Programme, Industry Conclave, Surveys with Industries, Projects, Campus Connect Programme, etc. stand testimony to this unique feature of the institution.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	DR. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY
Address	Udumalai road, Makkinaickenpatti post, Pollachi, Coimbatore District.
City	Coimbatore
State	Tamil Nadu
Pin	642003
Website	www.mcet.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	A. Rathinavelu	04259-236030	9842304211	04259-236070	principal@drmcet.ac.in
IQAC / CIQA coordinator	P. A. Periasamy	04259-236040	9942955574	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 minroity 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](#)	10-04-2017	12	

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?	Yes
If yes, name of the agency	National Institutional Ranking Framework
Date of recognition	03-04-2017

Location and Area of Campus				
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**
Main campus area	Udumalai road, Makkinaickenpatti post, Pollachi, Coimbatore District.	Rural	44.66	80290.37

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Mechanical Engineering	48	HSC	English	120	112
UG	BE,Electronics And Communication Engineering	48	HSC	English	120	110
UG	BE,Computer Science And Engineering	48	HSC	English	120	104
UG	BTech,Information Technology	48	HSC	English	120	99
UG	BE,Electrical And Electronics Engineering	48	HSC	English	120	99
UG	BE,Automobile Engineering	48	HSC	English	120	101
UG	BE,Civil Engineering	48	HSC	English	60	51
UG	BE,Electronics And Instrumentation Engineering	48	HSC	English	60	47
UG	BE,Production Engineering	48	HSC	English	60	44
UG	BE,Mechatronics Engineering	48	HSC	English	60	49
PG	ME,Mechanical Engineering	24	DEGREE	English	18	9

PG	ME,Electronics And Communication Engineering	24	DEGREE	English	18	5
PG	ME,Computer Science And Engineering	24	DEGREE	English	18	7
PG	ME,Electrical And Electronics Engineering	24	DEGREE	English	18	3
PG	ME,Civil Engineering	24	DEGREE	English	18	15
PG	MCA,Computer Applications	36	DEGREE	English	60	0
Doctoral (Ph.D)	PhD or DPhil,Mechanical Engineering	72	PG DEGREE	English	18	18
Doctoral (Ph.D)	PhD or DPhil,Electronics And Communication Engineering	72	PG DEGREE	English	16	16
Doctoral (Ph.D)	PhD or DPhil,Computer Science And Engineering	72	PG DEGREE	English	2	2
Doctoral (Ph.D)	PhD or DPhil,Electrical And Electronics Engineering	72	PG DEGREE	English	16	16
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering	72	PG DEGREE	English	5	5

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				10				21				208
Recruited	9	1	0	10	17	4	0	21	127	81	0	208
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				74
Recruited	54	20	0	74
Yet to Recruit				0

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	57	16	0	73
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	9	1	0	17	4	0	16	7	0	54
M.Phil.	0	0	0	0	0	0	7	17	0	24
PG	0	0	0	0	0	0	104	57	0	161
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers									
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
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**		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
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**	**Others**	**Total**
	16	0	0	16

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	2370	38	0	0	2408
	Female	978	9	0	0	987
	Others	0	0	0	0	0
PG	Male	51	1	0	0	52
	Female	112	1	0	0	113
	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

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	38	49	47	56
	Female	15	15	20	22
	Others	0	0	0	0
ST	Male	0	0	1	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	527	547	517	536
	Female	219	258	236	254
	Others	0	0	0	0
General	Male	37	32	34	39
	Female	13	18	12	18
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		849	919	867	925

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
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](#)
Electronics And Instrumentation Engineering	[View Document](#)
Information Technology	[View Document](#)
Mechanical Engineering	[View Document](#)
Mechatronics Engineering	[View Document](#)
Production Engineering	[View Document](#)

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2016-17	2015-16	2014-15	2013-14	2012-13
18	17	17	17	17

1.2

Number of all programs offered by the institution during the last five years

Response: 19

1.3

How many self-financed Programs does the institution offer

Response: 18

1.4

Number of new programmes introduced during the last five years, if any

Response: 4

1.5

Number of UG programmes offered by the College, which are not covered under the Autonomous status of UGC

Response: 0

1.6

Number of PG programmes offered by the College, which are not covered under Autonomous status of UGC

Response: 0

1.7

Whether the College is offering professional programme

Response: Yes

2 Students

2.1

Number of students year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
3654	3866	4025	3890	3712

2.2

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

2016-17	2015-16	2014-15	2013-14	2012-13
1082	1144	1090	980	877

2.3

Total number of outgoing / final year students

Response: 926

2.4

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

2016-17	2015-16	2014-15	2013-14	2012-13
7288	7663	7852	5992	4008

2.5

Number of revaluation applications year-wise during the last 5 years

2016-17	2015-16	2014-15	2013-14	2012-13
573	351	196	135	411

3 Teachers

3.1

Number of courses in all programs year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
562	575	602	592	695

3.2

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

Response: 1008

3.3

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

2016-17	2015-16	2014-15	2013-14	2012-13
248	261	250	257	230

3.4

Number of full time teachers worked in the institution during the last 5 years

Response: 249

3.5

Number of teachers recognized as guides during the last five years

Response: 30

3.6

Number of sanctioned posts year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
248	261	250	257	230

3.7

Total number of publications during the last 5 years, which are included in online databases such as SCOPUS, web of science or PubMed/ Indian Citation Index

Response: 262

4 Institution

4.1

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

2016-17	2015-16	2014-15	2013-14	2012-13
4860	3820	4770	4120	5850

4.2

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

2016-17	2015-16	2014-15	2013-14	2012-13
802	907	815	882	818

4.3

Total number of classrooms and seminar halls

Response: 81

4.4

Total number of computers in the campus for academic purpose

Response: 1792

4.5

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

2016-17	2015-16	2014-15	2013-14	2012-13
2709.37	3144.06	2391.78	2963.93	2966.23

4.6

Annual lighting power requirement (in KWH)

Response: 144275

4.7

Annual power requirement of the institution (in KWH)

Response: 738212

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1 Curricula developed /adopted have relevance to the local/ national / regional/global developmental needs with learning objectives including program outcomes, program specific outcomes and course outcomes of all the program offered by the Institution

Response:

The outcome based curriculum of the programmes of the institution has relevance to local/regional /national and global development needs. The needs are derived from various stakeholders such as alumni, academics, employers, parents and students located in different parts of the country and elsewhere and from recommendations of various statutory bodies such as UGC/AICTE/Anna University/BoS/Academic Council. Program Educational Objectives (PEOs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) are defined incorporating the behaviors that demonstrate the graduate attributes (as per Washington Accord) benchmarked globally. The regulations, curriculum and syllabi are designed and developed aligning to the PEOs,POs,PSOs and conforming to statutory requirements.

Courses and their outcomes **(Attached)** are designed and developed by experts in the respective/related fields. Apart from the courses in the broad categories such as humanities and social science, basic sciences, engineering sciences, professional core, professional electives, open electives, the institution offers professional skills courses and courses in niche and emerging technological areas through One Credit Courses(OCC) as part of employability enhancement courses.

Institution has established centers which offer value added courses in specific skills and domains under the cafeteria model which supplements the curriculum of the programmes to specialize in niche areas. Students and faculty learn various online courses through NPTEL, SWAYAM and other ONLINE course providers and get certified, gaining global exposure on courses.

Sample PEOs, POs and PSOs of a programme are listed below:

Programme: B.E. Computer Science and Engineering

PEO1. Domain Expertise: Possess expertise and emerge as key players in IT integrated domains.

PEO2. Computing Skills and Ethics: Employ computing skills to solve societal and environmental issues in an ethical manner.

PEO3. Lifelong Learning and Research: Involve in lifelong learning and research to meet the demands of global technology.

PO1.Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and concepts of Computer Science to solve complex engineering problems.

PO2.Problem Analysis: Identify, review literature, formulate and analyze complex engineering problems

using first principles of mathematics and engineering sciences.

PO3.Design and Development of Solutions: Design and develop computing solutions for complex engineering problems with societal and environmental awareness.

PO4.Complex problem Investigation: Investigate complex problems by employing research methods to arrive at valid conclusions.

PO5.Modern Tool Usage: Evaluate and use appropriate tools and techniques in engineering activities.

PO6.Societal contribution: Follow professional engineering practice by applying contextual knowledge to assess societal and legal issues.

PO7.Environment and Sustainability: Understand and provide professional engineering solutions taking into consideration environmental and economic sustainability.

PO8.Ethics: Follow ethical principles and norms in engineering practice.

PO9.Individual and Team work: Function effectively as an individual, team member or leader in diversified environments.

PO10.Communication: Communicate effectively through various modes for all engineering activities.

PO11.Project Management and Finance: Apply Engineering knowledge and management principles for effective project management in multi-disciplinary environments.

PO12.Life-long Learning: Engage in independent life-long learning and skill development for professional and social well-being.

PSO1: An ability to employ software engineering principles in the design and development of efficient systems.

PSO2: An ability to apply data analytics techniques for solving real world problems.

File Description	Document
Any additional information	[View Document](#)

1.1.2 Percentage of programs where syllabus revision was carried out during the last five years

Response: 100

1.1.2.1 How many programs were revised out of total number of programs offered during the last five years

Response: 19

File Description	Document
Minutes of relevant Academic Council/BOS meeting	[View Document]()
Details of program syllabus revision in last 5 years	[View Document]()
Any additional information	[View Document]()

1.1.3 Average percentage of courses having focus on Employability/ Entrepreneurship/ Skill development during the last five years

Response: 96.81

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

2016-17	2015-16	2014-15	2013-14	2012-13
562	575	602	592	584

File Description	Document
Program/ 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	[View Document]()
Any additional information	[View Document]()

1.2 Academic Flexibility

1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years

Response: 57.24

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

Response: 577

File Description	Document
Minutes of relevant Academic Council/BOS meetings	[View Document](#)
Institutional data in prescribed format	[View Document](#)

1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented

Response: 100

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

Response: 21

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

1.3 Curriculum Enrichment

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

Response:

Being an autonomous institution, while framing the curriculum the BoS/Academic council takes care of integrating the cross cutting issues such as gender sensitivity, gender awareness, gender audit, environment and sustainability, human values and professional ethics.

The institution is a co-educational engineering college; equal preference is given to all genders in all aspects. Female students excel in their performance and they have served as president, vice–president of Student Guild of Service, an apex student forum of the institution. Female physical education instructor and yoga instructor are available to train female students.

The institution offers SIX professional skills courses in all undergraduate programmes with credits and addresses issues on physical wellbeing, mental wellbeing, time management techniques, gender, values, fundamental aspects of ethics and morality, behavioral and emotional aspects, gratitude and social responsibility etc. Separate instruction through lady instructors is offered to girl students on specific issues as part of some of these courses.

Professional skills courses

1. Promotion of Student's Wellness
2. Sports for Wellness
3. Personal Effectiveness
4. Ethical and Moral Responsibility
5. Teamness and interpersonal skills
6. Campus to Corporate

Courses on professional ethics and human values

1. Professional Ethics
2. Professional Ethics and Human Values
3. Indian Constitution And Society
4. Intellectual Property Rights
5. Safety in Construction
6. Contract Laws And Regulations
7. Cyber Law and Information Act
8. Indian Constitution And Society
9. Cyber Law and Information Security

Environmental Science course is offered to all the students of undergraduate programmes of the institute to create environmental consciousness. Technical skills courses are also offered to address environment and sustainability issues like Environment legislation and social issues, human population on environment, Irrigation engineering structures, waste water treatment units, reuse and disposal of wastes, waste management, Sources, generation and storage, collection and transport, processing and disposal of municipal solid waste, in different undergraduate programmes of the institute.

Technical skills courses offered to address environment and sustainability issues

1. Environmental Engineering
2. Environmental studies
3. Water Resources and Irrigation Engineering
4. Environmental Engineering Laboratory
5. Irrigation and Environmental Engineering Drawing Laboratory
6. Air Pollution Management
7. Environmental Impact Assessment
8. Ecological Engineering
9. Industrial Waste Management
10. Municipal Solid Waste Management
11. Automotive Pollution Control
12. Vehicle Safety and Comfort Systems
13. Alternative fuels and energy systems
14. Industrial Safety Management
15. Electric, Hybrid and Fuel Cell Vehicles
16. Renewable Energy Sources

Centre for Research on Green Energy and Environment (CRGEE) is conducting Suryamitra Skill

Development Program sponsored by Ministry of New & Renewable Energy, Govt. of India for Diploma/ITI holders. The programme aims to develop the skills of youth, considering the opportunities for employment in the growing solar energy power project's installation, operation & maintenance and also it was designed to prepare the candidates to become new entrepreneurs in Solar Energy sector.

International conference on Renewable Energy and Sustainable Environment is conducted once every two year with two conferences on record. The College has signed MoUs with industries to work on renewable energy. Also a green bus to propagate environmental consciousness among community is in place

There are other forums such as Yuvasakthi, NCC and Women Empowerment Cell, which promote the activities of women empowerment in the campus.

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
Any additional information	View Document

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

Response: 515

1.3.2.1 Number of value-added courses are added within the last five years

Response: 515

File Description	Document
List of value added courses	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	View Document

1.3.3 Average percentage of students enrolled in the courses under 1.3.2 above

Response: 99.86

1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
3654	3866	3996	3890	3712

File Description	Document
List of students enrolled	[View Document](#)

1.3.4 Percentage of students undertaking field projects / internships

Response: 75.18

1.3.4.1 Number of students undertaking field projects or internships

Response: 2747

File Description	Document
List of programs and number of students undertaking field projects / internships	[View Document](#)
Any additional information	[View Document](#)

1.4 Feedback System

1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni 5) Parents for design and review of syllabus Semester wise /year-wise

Response: A. Any 4 of above

File Description	Document
Any additional information	[View Document](#)
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	[View Document](#)
URL for stakeholder feedback report	[View Document](#)

1.4.2 Feedback processes of the institution may be classified as follows:

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

File Description	Document
Any additional information	View Document
URL for feedback report	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average percentage of students from other States and Countries during the last five years

Response: 0.2

2.1.1.1 Number of students from other states and countries year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
11	11	9	2	6

File Description	Document
List of students (other states and countries)	[View Document]
Institutional data in prescribed format	[View Document]
Any additional information	[View Document]

2.1.2 Demand Ratio(Average of last five years)

Response: 391:30

2.1.2.1 Number of seats available year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
372	325	386	324	383

File Description	Document
Demand Ratio (Average of Last five years)	[View Document]

2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

Response: 74.08

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

2016-17	2015-16	2014-15	2013-14	2012-13
496	578	586	735	733

File Description	Document
Average percentage of seats filled against seats reserved	[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, after admission and organises special programs for advanced learners and slow learners

Response:

Students are admitted as per admission policy. Students admitted are from all over Tamil Nadu and join the programmes with different levels of academic standing. Five categories of students are admitted to the under graduate Engineering Programmes. They are:

 i. Students from English medium Central Board schools

ii. Students from English medium State Board Schools

iii. Students from Tamil medium State Board schools

iv. Students from Vocational stream

v. Lateral entry students

The newly admitted students in first year (categories i to iv above) with basic knowledge of physics, chemistry and mathematics are offered a bridge programme. Programme has courses to reinforce the science and mathematics pre-requisite knowledge required to commence learning courses of undergraduate engineering degree. Bridge courses are offered for First year students and Lateral entry Management Quota students.

Students admitted through lateral entry are offered extra classes to bridge the gap particularly in the mathematics.

Slow learners

Slow learners are identified in courses using the performance in various continuous assessment components. Special classes, remedial classes and tests are conducted for the slow learners after the regular class hours. Additional support material is provided to the slow learners as and when required. Learner's

progress is discussed with their parents for academic improvement if required.

Advanced learners

Advanced learners are identified in courses using the performance in various continuous assessment components. They are advised to take part in seminars and conferences. They are encouraged to write papers and publish in technical journals under the guidance of faculty members. They are also advised to crystallize their ideas into a project, which might earn them funding from the Institution. If it shapes into a viable project for external funding, the student is encouraged to apply for the same. Training based on Guidance for competitive examinations, Career Counseling, Soft skill development, Language lab and Personal Counseling are offered in various modes for fast learners like carrier guidance workshop, training for writing International English Language Testing System (IELTS), Cambridge English: Business Certificates (BEC) for improving language skills.

Orientation towards Graduate Aptitude Test in Engineering (GATE), Graduate Record Exam (GRE) are provided for enabling to apply for higher studies in foreign universities. Graduate Management Admission Test(GMAT),Common Admission Test(CAT) and Management Aptitude Test (MAT) awareness also provided to make the students applying for management and business studies.

File Description	Document
Any additional information	[View Document](#)
link for additional information	[View Document](#)

2.2.2 Student - Full time teacher ratio

Response: 185:13

File Description	Document
Institutional data in prescribed format	[View Document](#)

2.2.3 Percentage of differently abled students (Divyangjan) on rolls

Response: 0.06

2.2.3.1 Number of differently abled students on rolls

Response: 2

File Description	Document
List of students(differently abled)	View Document
Institutional data in prescribed format	View Document
Any other document submitted by the Institution to a Government agency giving this information	View 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:

Student centric methods

Experiential learning, participative learning, life-long learning, problem solving and active learning methods are used as student centric approaches to enhance learning experiences. The teaching- learning process in the institution consists of lectures, tutorials, practical sessions, projects, seminars, internships, industrial visits, industry tour and so on. The institution provides facilities like internet, wi-fi, LCD projectors, multimedia tools etc to facilitate the student centric methods. Online platforms, software and app based tools are also used to provide support to the teaching learning process. Class room instruction using tablets is also being piloted in the institution. The college library has its own dedicated portal through which students and faculty members can access a lot of material.

Experiential learning

Experiential learning is provided to the students in laboratory sessions, internships and through hands on trainings in centers. During the lab sessions the students test the theory learnt in the class room through various experiments performed using state of the art machinery/equipment/software. The institution encourages students for internships/industry attachment in the 2, 4, 12/24 model which has been custom designed to enable student have a real feel of industry environment and work on real time projects in industry. Separate skill oriented one credit courses are also provided to the students in their curriculum itself.

Participative learning

Participative learning is encouraged through paper presentations, participation in technical events, undertaking industrial and in house projects. The institution encourages students to take part in various technical events. Students also organize many events, like technical symposiums, and other events. They also act as volunteers in department and institutional level workshops, seminars, conferences etc. Students learn collaboratively by doing mini projects, in- house projects and industrial projects during their course of study.

Problem solving

Problem solving exposure is given to students through tutorials, assignments and projects. In the tutorial class TWO teachers will be present in the class and they act as facilitators for the students in working out the solutions. Separate tutorial rooms are also available for each department to handle tutorial classes. The students also form small groups and discuss among themselves which promote interactive and peer learning.

Life-long learning

Independent learning is encouraged through assignments, seminars and self-study components. Students are allowed to take individual assignments and seminars. 25% of marks from these components are considered for their internal marks. From third year onwards, they are allowed to take self-study components as one unit from each of two/three courses per semester. During the allotted time for self-study unit, they are allowed to go to library for learning apart from their regular library period in the timetable.

Active learning methods

Faculty members use active learning methods such as think pair share, discussions, debates, role plays, quizzes etc. during the delivery of lectures. These methods along with the other features of the teaching learning process at the institution enables higher order thinking skills in the students.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

Response: 97.98

2.3.2.1 Number of teachers using ICT

Response: 243

File Description	Document
List of teachers (using ICT for teaching)	[View Document](#)
Any additional information	[View Document](#)
Provide link for webpage describing the " LMS/ Academic management system"	[View Document](#)

2.3.3 Ratio of students to mentor for academic and stress related issues

Response: 147:10

2.3.3.1 Number of mentors

Response: 243

File Description	Document
Year wise list of number of students, full time teachers and mentor/mentee ratio	[View Document](#)

2.3.4 Preparation and adherence to Academic Calendar and Teaching plans by the institution

Response:

Academic Calendar: The Academic Calendar for the institute is planned in prior for every academic year and disseminated on the college website. The Academic Calendar consists of dates for commencement of classes for odd and even semesters, dates for commencement of internal tests, holidays, last working day for UG and PG programs, commencement of end semester practical and theory examinations, total number of working days along with month wise activities. It adheres to statutory Guidelines and ensures 90 working days for each semester.

Course Allotment: Courses allotment at the department level is done by the Head of the Department. Faculty member willingness is collected during previous semester and courses are allotted based on their interest and domain expertise.

Time Table: The timetable is planned before the end of the previous semester for ensuing semester. There is a time table coordinator for each department who ensures that the departmental time-table is prepared as per the curriculum structure and is received by all the concerned course instructors. Timetable is mapped with the corresponding course instructors in automation software prior to commencement of classes.

Teaching Plan: Course coordinators are identified for coordinating all the courses in each semester for preparing course plan and assessment plan etc. Based on the discussion with course coordinator the faculty members of corresponding courses prepare a Lecture Plan consisting of Course Objectives, Course Outcomes, Number of hours required to complete each topic, unit, schedule of assignments, quizzes etc. Fitting in the given academic calendar, teaching plan is made by the respective teacher under the guidance and approval of the head of department. For the laboratory sessions, tutorials, mini-projects and projects also similar planning is followed. The faculty members maintain a log book for each of the subject and the laboratory classes they handle where date-wise and hour wise details of the topics covered in the classroom is entered. The log books and course coverage reports are periodically checked by the HODs and the Principal. Software is used for logging of attendance, topic coverage as well as storage/ reporting of marks and attainment of outcomes. The extract of 2017-2018 Even semester is provided below as sample:

2017-2018 EVEN SEMESTER : ACADEMIC CALENDAR

S NO	MONTH	DATES/DAY	ACTIVITY	
1.	December	13 wed	Reopening of even semester	

2.	January	29 Mon 30 Tue 31 Wed	CCET I	
3.	March	14 wed 15 thu 16 Fri 17 Sat	CCET II	
4.	April	16 wed 17 thu 18 Fri	CCET III	
5.	April	30 Mon	END SEMESTER THEORY BEGIN	
6.	May	12 Sat	END SEMESTER THEORY ENDS	

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	<u>View Document</u>
List of the faculty members authenticated by the Head of HEI	<u>View Document</u>

2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

Response: 13.1

2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
47	38	34	26	19

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	<u>View Document</u>

2.4.3 Teaching experience per full time teacher in number of years

Response: 8.82

2.4.3.1 Total experience of full-time teachers

Response: 2215

File Description	Document
List of Teachers including their PAN, designation,dept and experience details	

2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response: 40.66

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
158	105	93	105	49

File Description	Document
Institutional data in prescribed format	
e-copies of award letters (scanned or soft copy)	
Any additional information	

2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

Response: 1.44

2.4.5.1 Number of full time teachers from other states year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
5	4	3	3	3

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	
Any additional information	

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 during the last five years

Response: 25.4

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

2016-17	2015-16	2014-15	2013-14	2012-13
28	21	21	30	27

File Description	Document
List of programs and date of last semester and date of declaration of result	[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: 0.04

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

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	0	9	1

File Description	Document
Number of complaints and total number of students appeared year wise	[View Document](#)

2.5.3 Average percentage of applications for revaluation leading to change in marks during the last five years

Response: 21.49

2.5.3.1 Number of applications for revaluation leading to change in marks year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
105	85	34	55	28

File Description	Document
Year wise number of applications, students and revaluation cases	View Document

2.5.4 Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system

Response:

Examination Procedure and Continuous internal assessment system

Continuous Comprehensive Evaluation (CCE) shall comprise of performance of students in each course and other components. Performance in each course of study shall be evaluated based on (i) continuous Internal Assessment (IA) throughout the semester and (ii) End Semester Examination (ESE). For all theory courses, the continuous internal assessment will carry 40 marks while the end semester examination will carry 60 marks. For all practical and project work courses, the continuous internal assessment will carry 75 marks while the end semester examination will carry 25 marks. Project work may be allotted to a single student or to a group of students. The project work shall be evaluated for a maximum of 200 marks. The total 200 marks will be converted to 100 marks. The continuous internal assessment will carry 150 marks (75 %) while the End Semester Examination will carry 50 (25 %) marks.

The End Semester examination, both theory and practical, will be of 3 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.

Student's centric reforms:

- Online registrations of the courses are carried out through campus automation software
- Student friendly hall tickets are issued with examination details for their respective examinations.
- The results of end semester examinations are published through online
- The student can get the photocopy of answer script to receive counselling with faculty member to apply revaluation

Process Reforms:

- Guidelines for examination procedure are available for the smooth functioning of the controller office.
- The question papers setting are done by both internal and external subject matter experts.
- Review of the question papers are carried out by internal and external subject matter experts in various aspects to match with teaching learning process.
- The seating arrangements for the students are frequently changed for theory examinations

Process Integrating IT

- IT enabled examination management system (virtual network)
- IT enabled internal assessment marks entry portal (intranet)
- Activities governed by operations manual (developed in-house)
- MCET Edu Application for Students and Staff
- Registration
- CA marks
- Attendance entry
- End semester results
- Photo copy and revaluation application
- Multiple layer of Security system in COE office and examination halls
- Results are published in dedicated URL
- Dedicated server and LAN infrastructure is available.
- Hall tickets are generated with day wise hall and seating arrangements
- Higher end copier machines are used for question paper printing with 15000 pages per hour.

Positive Impacts

- Internal marks are deliberated to the students before they appear for End semester examination.
- Students get to know their examination results are published before the commencement of next semester classes.
- High confidence in evaluation and assessment process for students through transparency.
- Exposing students to higher order thinking skills through blooms taxonomical based question papers.
- Competent faculty practicing outcome based teaching and learning process.
- Student centric, faculty driven IT enabled, secure examination system resulting in timely, transparent processing of student assessments and examinations.
- The experts from premier institutions are involved in Question paper setting and evaluation of answer scripts. The same is followed for conducting project viva voce.

File Description	Document
Link for Additional Information	[View Document](#)

2.5.5 Status of automation of Examination division along with approved Examination Manual

Response: A. 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	[View Document](#)
Current Manual of examination automation system	[View Document](#)
Annual reports of examination including the present status of automation	[View Document](#)

2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

Response:

Mechanism of Communication:

The Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are displayed on the college website and in prominent places in the departments like, Noticeboard, Office, Library and class rooms, Laboratory Noticeboards, Department Handout and Brochure, Department Association Newsletter etc.

In department meetings it is communicated to the faculty and they are made aware of it. It is communicated to the students during the start of every session by the concerned department faculty members. The courses are divided into units and the course objectives and outcomes are stated for the units to make the student understand about the units. The students are briefed about the course outcome, learning outcome and specific outcome at the start of each session.Sample PO's and PSO's are listed for sample programme:

- PO1.Engineering Knowledge : Apply the knowledge of mathematics, science, engineering fundamentals and concepts of Computer Science to solve complex engineering problems.

- PO2.Problem Analysis : Identify, review literature, formulate and analyse complex engineering problems using first principles of mathematics and engineering sciences.

- PO3.Design and Development of Solutions : Design and develop computing solutions for complex engineering problems with societal and environmental awareness.

- PO4.Complex problem Investigation : Investigate complex problems by employing research methods to arrive at valid conclusions.

- PO5.Modern Tool Usage : Evaluate and use appropriate tools and techniques in engineering activities .

- PO6.Societal contribution : Follow professional engineering practice by applying contextual

knowledge to assess societal and legal issues.

- PO7.Environment and Sustainability : Understand and provide professional engineering solutions taking into consideration environmental and economic sustainability.

- PO8.Ethics : Follow ethical principles and norms in engineering practice.

- PO9.Individual and Team work : Function effectively as an individual, team member or leader in diversified environments .

- PO10.Communication : Communicate effectively through various modes for all engineering activities.

- PO11.Project Management and Finance : Apply Engineering knowledge and management principles for effective project management in multi-disciplinary environments.

- PO12.Life-long Learning : Engage in independent life-long learning and skill development for professional and social well being..

PSO 1.System Engineering:An ability to employ software engineering principles in the design and development of efficient systems.

PSO 2.Knowledge Engineering:An ability to apply data analytics techniques for solving real world problems.

File Description	Document
COs for all courses (exemplars from Glossary)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

Response:

Method of measuring attainment of COs:

The course outcomes are stated in the syllabus of each course. Any allied academic activity is also expected to have outcomes. If the outcomes are not defined for any course or allied academic activity, the faculty member is expected to discuss the same with the HoD immediately.

Outcome measurement is classified into TWO as direct and indirect. For courses the direct outcome measurement emanates from the marks scored by students for the questions asked in various assessments. Indirect measurement is done using surveys from key stakeholders on a 0 to 3 Likert's scale. The standards and targets for course attainment are specified by the institution for each programme. Each faculty member strives to achieve these targets of course attainment. Following are the steps to measure the course outcomes;

- Get to know the targets for course attainment
- Set questions at the appropriate Bloom's levels for all the assessments
- Indicate the CO and Bloom's level for each question in all the assessments
- Capture the marks of each student against each question asked in the assessments
- Feed the data into software templates and calculate the CO attainment for each student and the course (for multi section, submit the data to the course coordinator for further processing)

Method of measuring attainment of POs and PSOs:

PO/PSO Attainment is computed using two methods: Direct and Indirect Attainment with weightages for each.

Direct attainment is obtained as follows: The course outcomes are stated in the syllabus of each course. For every course the course articulation matrix is prepared, which identifies the affinity of each CO with the POs and PSOs of the programme. From the course articulation matrices of all courses of the programme the programme articulation matrix is prepared. From the attainment values of COs of the courses the attainment levels of the POs and PSOs are computed by weighted average using the programme articulation matrix.

CO Attainment Levels (Standards) are as follows;

LEVEL	DESCRIPTION	SCORE	MARKS/Grade	Target Percentage
Level 4	Very well accomplished	3	70% and above	30%
Level 3	Well accomplished	2	60% to 69%	40%
Level 2	Moderately accomplished	1	50% to 59%	30%
Level 1	Poorly accomplished	0	<50%	

Indirect Attainment is computed using Course exit survey which is conducted for all the student's semester wise at the end of each semester. Tools like In pods software and Google forms are used for obtaining the surveys.

PO attainment for the three academic years of passed out batches are computed to be 2.5 on an average. For PSO computation survey reports from various stakeholders like student, alumni, Employer and Teacher are collected through online forms, e mails, mobile apps etc. These reports are consolidated and scores are generated for indirect attainment.

File Description	Document
Link for Additional Information	[View Document](#)

2.6.3 Average pass percentage of Students

Response: 89.83

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 972

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

Response: 1082

File Description	Document
List of programs and number of students passed and appeared in the final year examination	[View Document](#)
Link for annual report	[View Document](#)

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process	
Response: 3.75	
File Description	**Document**
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 has a well defined policy for promotion of research and the same is uploaded on the institutional website

Response: Yes

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)

Response: 5.87

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)

2016-17	2015-16	2014-15	2013-14	2012-13
0.52	0.88	23.35	2.25	2.35

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

Response: 10

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

2016-17	2015-16	2014-15	2013-14	2012-13
3	0	1	2	4

File Description	Document
List of teachers and their international fellowship details	[View Document](#)
e-copies of the award letters of the teachers.	[View Document](#)
Any additional information	[View Document](#)

3.1.4 Institution has the following facilities

1. **Central Instrumentation Centre**
2. **Animal House/Green House / Museum**
3. **Central Fabrication facility**
4. **Media laboratory/Business Lab/Studios**
5. **Research / Statistical Databases**

Response: A. Any four facilities exist

File Description	Document
Any additional information	[View Document](#)
Link to videos and photographs geotagged	[View Document](#)

3.2 Resource Mobilization for Research

3.2.1 Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments,Chairs in the institution during the last five years (INR in Lakhs)

Response: 150.18

3.2.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
45.75	4.00	32.68	22.50	45.25

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

3.2.2 Number of research centres recognised by University and National/ International Bodies

Response: 5

3.2.2.1 **Number of research centres recognised by University and National/ International Bodies**

Response: 5

File Description	Document
Names of research centres	View Document
Any additional information	View Document

3.2.3 Percentage of teachers recognised as research guides

Response: 11.95

3.2.3.1 **Number of teachers recognised as research guides**

Response: 30

File Description	Document
Details of teachers recognized as research guide	View Document
Any additional information	View Document

3.2.4 Number of research projects per teacher funded, by government and non-government agencies, during the last five year

Response: 0.12

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

Response: 29

File Description	Document
Supporting document from Funding Agency	[View Document](#)
List of research projects and funding details	[View Document](#)
Any additional information	[View Document](#)
link to funding agency website	[View Document](#)

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge

Response:

Centre for Innovation Business Incubation and Entrepreneurship (CIBIE)

CIBIE was established in the year 2015 to inculcate innovation driven entrepreneurship. A questionnaire is administered to discover the career aspirations of the students. This enables CIBIE to identify the students with the interest to become entrepreneur.

CIBIE at regular interval brings successful entrepreneurs to share their experience. Conduct Idea Pitching Contest among students to come out with innovation based Start-up. Students with viable ideas are mentored and encouraged to transform their ideas to prototype and eventually become an incubatee.

CIBIE offers common facility to the incubatees such as; Work Space, Conference Room, IT infrastructure and power. The incubatees are also mentored to refine their ideas through validation. The abstract of their ideas are shared with relevant forums.

Incubatees:

1. **Mash Technologies:** This is started by Mr. S. Vignesh, an alumnus and Computer Science graduate from 2015. This is a software company that offers services and develops software products. Team size 5
2. **The Chat Affair:** This is founded by Mr. S. Ramachandran, Mr. G. Karvendhan, and Mr. K. SathishKanna, final year students (2017-18) of IT Department. The Chat Affair is a snack bar that is in pursuit of serving different types of snacks that may not be available in the local market
3. **iBevy Forte Pvt Ltd:** Final year students of IT Department (2017-18) viz: Mr. HarshavardhanMaran, Ms. NikithaKannan, and Mr. NarendranIlango joined together to start this software development company. Their achievements are within the first six months of their genesis they have generated revenue, bagged a government project and won first place in TNSI 2017

innovation contest

4. **E. C. Retail:** Mr. Jeevanandhan, a seasoned entrepreneur has established this company in the incubation centre. This is a software product development company that serves the retail industry. This was started in September 2017

5. **Seyonn Digital Pvt Ltd:** This is an innovative company that has come up with an app to support farmers in their crop cultivation and selling of produce. This app primarily empowers the farmers to be independent. The company was started by M/s Krishnaraj and Ashok Kumar

6. **Chef Labs:** This is the youngest member of CIBIE. M/s. S. Yoginth and Mr. R. Dhivyananthan, CSE II year students are a passionate duo who are working on a software product and have a dozen of innovative ideas

Industry Academia Partnership and its Benefits:

The college has recruited a team of members with industry experience under Career Planning and Guidance Department. The team generates links with the industry through periodic visit to their office and participating in monthly and annual meets of Corporate Forums. This helps in organising programs such as Student Talent Enhancement Program (STEP) for students of all years inviting industry experts to interact with the students.

Apart from this the team also seek Student projects, internship, request to set up extended development centre and Centres of Excellence, guest lecture, problem statements, consultancy work, etc. All these efforts are taken to keep abreast with the current industry trend.

File Description	Document
Any additional information	[View Document](#)
link for additional information	[View Document](#)

3.3.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry - Academia Innovative practices during the last five years

Response: 109

3.3.2.1 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
45	34	22	8	0

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

3.3.3 Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years

Response: 488

3.3.3.1 Total number of awards for innovation won by institution/teachers/research scholars/students year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
178	105	112	46	47

File Description	Document
List of innovation and award details	View Document
e- copies of award letters	View Document
Any additional information	View Document

3.3.4 Number of start-ups incubated on campus during the last five years

Response: 5

3.3.4.1 Total number of start-ups incubated on campus year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
3	1	1	0	0

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File Description	Document
List of startups details like name of startup, nature, year of commencement etc	<u>View Document</u>
e- sanction order of the Institution for the start ups on campus	<u>View Document</u>
Contact details of the promoters for information	<u>View Document</u>
Any additional information	<u>View Document</u>

3.4 Research Publications and Awards

3.4.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

Response: Yes

File Description	Document
Institutional data in prescribed format	<u>View Document</u>
Any additional information	<u>View Document</u>

3.4.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

Response: Yes

File Description	Document
List of Awardees and Award details	<u>View Document</u>
e- copies of the letters of awards	<u>View Document</u>
Any additional information	<u>View Document</u>

3.4.3 Number of Patents published/awarded during the last five years

Response: 0

3.4.3.1 Total number of Patents published/awarded year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	0	0	0

File Description	Document
List of patents and year it was awarded	View Document

3.4.4 Number of Ph.D.s awarded per teacher during the last five years

Response: 0.73

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

Response: 22

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

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

Response: 3.54

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

2016-17	2015-16	2014-15	2013-14	2012-13
277	241	168	101	94

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

3.4.6 Number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings per teacher during the last five years

Response: 1.94

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

2016-17	2015-16	2014-15	2013-14	2012-13
242	78	71	63	29

File Description	Document
List books and chapters in edited volumes / books published	[View Document](#)
Any additional information	[View Document](#)

3.4.7 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

Response: 4.35

3.4.7.1 Total number of citations received by publications in the last 5 years, which are included in online databases such as SCOPUS, web of science or PubMed/ Indian Citation Index

Response: 133

File Description	Document
BiblioMetrics of the publications during the last five years	[View Document](#)
Any additional information	[View Document](#)

3.4.8 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution

Response: 12.5

3.4.8.1 Number of citations received by individual research publications in the last 5 years

Response: 366

3.4.8.2 Number of publications receiving proportionately maximum number of citation in the last five years

Response: 32

File Description	Document
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	[View Document](#)
Any additional information	[View Document](#)

3.5 Consultancy

3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual

Response: Yes

File Description	Document
Soft copy of the Consultancy Policy	[View Document](#)
Minutes of the Governing Council/ Syndicate/Board of Management related to Consultancy policy	[View Document](#)
Any additional information	[View Document](#)
URL of the consultancy policy document	[View Document](#)

3.5.2 Revenue generated from consultancy during the last five years

Response: 68.09

3.5.2.1 Total amount generated from consultancy year-wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
28.36	20.82	18.71	0	0.20

File Description	Document
List of consultants and revenue generated by them	[View Document](#)
Audited statements of accounts indicating the revenue generated through consultancy	[View Document](#)
Any additional information	[View Document](#)

3.5.3 Revenue generated from corporate training by the institution during the last five years

Response: 8.59

3.5.3.1 Total amount generated from corporate training by the institution year-wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
3.94325	1	2.78	0.3	0.57

File Description	Document
List of teacher consultants and revenue generated by them	[View Document](#)
Audited statements of account indicating the revenue generated through training	[View Document](#)
Any additional information	[View Document](#)

3.6 Extension Activities

3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

Response:

SAKTHI PURA

PURA is a notable programme initiated by His Excellency, the former President of India, Dr. A.P.J. Abdul Kalam for Providing Urban amenities in Rural Areas . The perspective of the programme is to enhance the development in villages with all basic facilities like Roads, Water, Lighting, School, Communication, Health and Employment in order to arrest migration from rural areas to urban and also to improve the income generation in rural areas.

SAKTHI PURA was taken up by Nachimuthu Industrial Assoication Educational Institutions and it was launched by the former President of India Dr. A. P.J. Abdul Kalam on 19.12.2006 at Pollachi. SAKTHI group of companies under the helm of Arutchelvar Dr. N. Mahalingam as Educationalist, Philanthropist and Industrialist par excellence, hails from Pollachi. It runs an array of Educational Institutions under the banner NIA Educational Institutions and it is a part of SAKTHI Group, providing yeoman services to the society.

Dr. Mahalingam College of Engineering and Technology is one of the Educational Institutions of NIA. Extension Services Department was created in Dr. MCET from 2007-08 academic year. Extension Services Department was established mainly to strengthen the community activities in Rural areas, in and around Pollachi.SAKTHI PURA has identified several thrust areas of which Community Rural Development is one of the most important areas. Dr. MCET through Extension Services Department is doing the PURA activities in Pollachi region in 5 cluster villages consisting of 32 villages.

This programme, educates people on basic health, Modern Technologies in Agriculture, post-harvest Technologies, Food processing, Skill Training, Rural Youth Employment generation, Protecting ground water leveland environment from Pollution, Blood donation, Rain water Harvesting, preparation of Vermin Composting and coir pith composting, Herbal Juice Training to the tribal people. Collaborates and Co-ordinates with Government and non – governmental organisations, NSS, NCC, YRC, RRC wing of NIA Educational Institutions.

NCC

Dr. Mahalingam College of Engineering and Technology (MCET)has established MCET –NCC unit in the year of 2003. This NCC unit conducts social service activities regularly at peripheral locations and MCET campus in addition to the regular official parades.

The NCC Cadets of this unit spearhead community awareness events like rally on conservation of water bodies, SwachhBharathAbhiyan – Cleanliness drive, AIDS awareness programme, Tree plantation and environment protection, Anti tobacco rally, Youth awakening day and Cleaning programme.These kinds of events create awareness on specific topics among the village peoples.

MCET –NCC cadets have been a part of Blood donation camps along with the NSS units of MCET and Government Hospital Pollachi. They have donated more than 50 units of blood for use of needy poor peoples.

NSS

NSS MCET nurtures the awareness on various sectors among the villagers of nearby villages during special camp events. The camp is scheduled every year with one week duration and the events are listed below. The beneficiaries are the village youth, unemployed women, farmers and students of Government schools. The events are planned and executed by the NSS volunteers of MCET and it reflects the current issues of the society.

File Description	Document
Any additional information	[View Document](#)
link for additional information	[View Document](#)

3.6.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

Response: 25

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

2016-17	2015-16	2014-15	2013-14	2012-13
7	2	3	8	5

File Description	Document
Number of awards for extension activities in last 5 years	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 in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

Response: 111

3.6.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
26	34	24	18	9

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach programs 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 with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response: 37.72

3.6.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2036	1729	1100	1405	918

File Description	Document
Report 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 for research, faculty exchange, student exchange per year

Response: 17.2

3.7.1.1 Total number of Collaborative activities for research, faculty exchange, student exchange year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
50	19	7	4	6

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 linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the last five years

Response: 1087

3.7.2.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
410	389	194	89	5

File Description	Document
e-copies of linkage related Document	
Details of linkages with institutions/industries for internship	
Any additional information	

3.7.3 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: 32

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

2016-17	2015-16	2014-15	2013-14	2012-13
11	7	5	5	4

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

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Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc

Response:

Classroom Facilities

Institution is provided with excellent classroom facilities. The furniture in classrooms which consist of three types namely, fixed and non-fixed type of bench and desk which can accommodate four members and for individual, a fixed folded type chair and table. Each class is provided with green/black board and stage with sufficient number of lights and fans. Good ventilation is provided and windows are covered with curtains. Each classroom is mounted with LCD projector and LAN Connection for ICT Based Learning is also provided. It indicates that MCET is making use of tablets for teaching and learning. The tablet provided to the students is specially designed for teaching and learning purpose with long lasting battery, which can withstand for one full day. The lecture notes are uploaded in the staff login and the same can be synchronized to the entire students' team through a wifi router placed inside the classroom. All the contents are viewed through specially designed software, where faculty has the control of the entire tablet inside the classroom.

Laboratory Facilities

Institute has modern, well - equipped laboratories with latest equipment and required software for all the programme. A separate storage facility is provided to store raw material and consumables. In addition, it consists of first aid kit and fire safety measures.Labs are suitably designed to accommodate and run heavy machinery. Multiple power supplies like UPS, Gensetand EB power are suitably provided for all the lab spaces.

Computing Facilities

MCET provides well - equipped computer facilities with the best state of the art computer lab and research center. A high speed optical fibre network enables students to access a wide range of services across the campus including all computer labs. The college has wide range of Software which has been installed to enable the students in mastering the many computer languages and learning to master any new technology. The Institute has 200 mbps internet connectivity throughout the campus which facilitate the students to enhance their knowledge on par with industry requirements.

General Infrastructure

The Institute provides the right environment with natural learning in harmony with nature, away from the odds of city life. The spacious and the earth hugging buildings punctuated with landscaped pathways are designed to emphasize the learning ethics and regarded as excellent center for learning. The campus has Solar LED Lights, Academic Blocks, Computer Centers, Lecture halls, libraries, laboratories, conference halls, hostel and centres of excellence. It is an ideal, conducive, educational retreat where one can fully focus on studies and research and attain academic goals.

Green Energy Initiatives

The Institution takes lot of initiatives to promote green energy. In this regards MCET have 50.44 kWP grid connected solar power plant installed in various locations of the Institution. In addition 4.75 kWP solar PV panels are available, exclusively for teaching and research purpose.

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

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

Response:

SPORTS AND GAMES FACILITIES

The Institution has 12.5 acres playground for outdoor sports like Athletics, Cricket, Hockey, Football, Tennis, Volley ball, Basketball indoor stadium with shuttle badminton court, table tennis, chess, and carom are available to promote sports and cultural events. A fulltime Physical director works for the physical fitness of students and sports activities. College teams are take part in Anna University Zonal level competitions and other intercollegiate competitions. Sports event competitions are conducted in inter departmental level in an academic year and the winners and participants are awarded in Annual Sports Day celebration to encourage them.

GYM and Fitness Centre

Modern Gym offers fun and safe learning environment that gives weight training, strengthening and weight loss programmes. We strive to develop student's confidence and determination through their mastery of skills and improved fitness. High – Quality instructions from energetic, enthusiastic and proficient coaches make this possible.

Cultural Activities

The Institution offers a good opportunity for the students to come out with their talents in Dance, Music, Art and Mime. Fine arts club organises various cultural activities to make the students relax, enjoy and balance leisure. Fine arts club has 100 members.

Muthamil 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" gives them self confident and to be remember their identity. Muthamil mandram organized various events for school, college students and faculty members. The Institution has a Centenary Centre Auditorium with a capacity

of 4000 to conduct cultural and other mega events. Frequent programs are conducted to encourage the student's participation.

File Description	Document
Any additional information	[View Document](#)
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

Response: 93.83

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 76

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	[View Document](#)
Any additional information	[View Document](#)
Link for additional information which is optional	[View Document](#)

4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

Response: 37.96

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
710.00	650.00	950.00	1510.00	1550.00

File Description	Document
Details of budget allocation, excluding salary during the last five years	[View Document](#)
Audited utilization statements	[View Document](#)
Any additional information	[View Document](#)

4.2 Library as a Learning Resource

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

Response:

Library is automated using Integrated Library Management System (ILMS)

MCET College central is fully automated with AUTOLIB advanced integrated Library automation management software.

Year	Name of the ILMS software	Version	Nature of automation (fully or partially)
2012-2013	AUTOLIB ILMS software	VB 5.1	Fully Automation
2013-2014	AUTOLIB ILMS software	VB 5.1	Fully Automation
2014-2015	AUTOLIB ILMS software	VB 7.1	Fully Automation
2015-2016	AUTOLIB ILMS software	VB 7.1	Fully Automation
2016-2017	AUTOLIB ILMS software	VB 7.1	Fully Automation

AutoLib ILMS 5.1 version was used from 2012 to 2014 and 7.1 version is being used from 2014 onwards in VB Language. The AutoLib – ILMS contains the following modules

VARIOUS MODULES

1. Search (Online Public Access Catalogue):

- To search the database using important fields such as Accession Number, Call Number, Author, Title, Edition, Year, Publisher, Subject, Keywords, Department, Availability, etc.

2. Circulation Management - Transaction
All types of counter transactions (for all documents types) such as:

- Issue/Renewal /Return/Recall
- Reservation / Reservation Cancel
- Reminders/Overdue receipt/No-due certificate
- Overdue reports (based on many criteria)
- Statistics/Reports for all counter transactions (daily/weekly/monthly/specific dates)

3. Student Gate Entry Register

Electronic Gate Entry system is using for monitor the user entry of students, faculty and others staff members.

4. Database Management - Cataloguing

- Books, , Journal- Issues, Back Volumes
- Non-book materials/ CD, Video/Audio tapes,
- Members, Departments , Courses, Groups

Authority List - Authors, Publishers, Suppliers, Subjects, Keywords

5. Report Management

Report can generate and print a large number of reports such as:

- List of books by author, title, unique titles publisher, supplier, call number, subject, dept., accession number, date, book type and list ofjournals /Publishers

6. Serial Control System -(Journals)

- Creation and maintenance of journal master,Receipt of issues and entry
- Claiming missing issues/replacement,Browsing/searching issues,Bound volumes ,

7. Stock Verification

- For stock verification of library resources using barcode scanner and data capturing unit
- Generate reports of books such as - missing, lost, issued, binding, transferred, condemned, available, etc.

File Description	Document
Any additional information	[View Document](#)
link for additional information	[View Document](#)

4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment

Response:

COLLECTION OF RARE BOOKS

MCET Library boasts of a massive collection of rare books/hand books, special reports and encyclopedia. Journals in the field of science, technology, architecture and biography of famous personalities, rare photographs etc. more than 100 titles. It encompasses the curriculum refer the all engineering disciplines and higher research for students and faculty. In addition, the reference section of library also houses general books which includes biography of Mahatma Gandhi and Swami Vivekananda, photographs of Sri Ramakrishna Sarada Devi and Mahatma Gandhi. The Science and Technology collection has increased in our library. The collection is known for its unique and valuable rare hand books. Some of the collections are listed below

Auto editors' consumer's guide encyclopaedia of American cars book from Louisweber publisher describes the valuable information on automotive history for the period 1930 - 1980.

Airport Engineering Planning Design And Development Of 21st Century Airports by John Wiley & Sons first published in 1979, Airport Engineering by Ashford and Wright has become a classic textbook in the education of airport engineers and transportation planners This new edition of Airport Engineering responds to the shift in the growth of airports globally, with a focus on the role of the International Civil Aviation Organization (ICAO), while still providing the best practices and tested fundamentals that have made the book successful for over 30 years

 McGraw-Hill Encyclopaedia of Science & Technology is a multivolume encyclopaedia that specifically focuses on scientific and technical subjects it covers the life sciences and physical sciences as well as engineering and technology topics.

Our library preserves a collection of various survey reports from Hindu publisher such as Survey of the Environment, 2012, Survey of Indian Industry 2012, Survey of Indian Agriculture 2012 which adds values to civil engineering.

The Handbook of Research on Human Performance and Instructional Technology from information science reference publisher provides theoretical understanding of the essential link between education, training development, organization development, performance improvement, and instructional technology which in providing the latest knowledge in Instructional technology and human performance.

The art of India Book from Kasturi and sons publishers with two hard-bound volumes contains about 450 breathtaking photographs presenting the best works of art and architecture found in places of worship across India - from Harvan in Kashmir to Kazhugumalai in the southern tip of India, from the PilakStupa in Tripura to Somnath Temple in Gujarat.

File Description	Document
Any additional information	[View Document](#)
link for additional information	[View Document](#)

4.2.3 Does the institution have the following

1. e-journals
2. e-ShodhSindhu
3. Shodhganga Membership
4. e-books
5. Databases

Response: Any 4 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc.	
Any additional information	

4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

Response: 24.21

4.2.4.1 Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
15.34955	21.14048	27.61974	37.32724	19.62973

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	
Audited statements of accounts	
Any additional information	

4.2.5 Availability of remote access to e-resources of the library

Response: Yes

File Description	Document
Details of remote access to e-resources of the library	
Any additional information	

4.2.6 Percentage per day usage of library by teachers and students

Response: 39.89

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

Response: 1525

File Description	Document
Details of library usage by teachers and students	[View Document](#)
Any additional information	[View Document](#)

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

Institution frequently updates its IT facilities including Wi-Fi

The Institute is committed to provide state-of-the-art IT infrastructure and services. With the growth of users, IT services and increasing internet bandwidth demand, the institution has scales up the switching capabilities and implemented latest managed through optical fibre cables of 3.5Kms long and Wi-Fi access. The Institute has high-end core switches and servers. The upgradation of computer systems is taken up on a periodically. The printers and scanners are also upgraded with new additions to the laboratories, office, library and departments. The college annually purchases/upgrades and replaces or adds a fleet of computers, hardwares, etc as per the requirements. The IT infrastructure is continually upgraded.

The bandwidth has been progressively increased from 16 Mbps to 200 Mbps over a period of 20 years to suit the demands. For ease of access, the three blocks (A, B and C) have been enabled with Wi-Fi (73 Wi-Fi points spread over different locations). The Institute has provision of polycom video conference facility to create state of art Audio Visual conference facility for interactive lecture sessions conducted by reputed Institutes like IITs. Institute has recently implemented tablet based teaching and learning to increase the use of peer-based learning Approache. All the classrooms, seminar and conference halls have been installed with LCD projectors. Biometric scanner based attendance capturing system is upgraded for faculty members. Microsoft 365 cloud based web and mail server is used for staffs and students e-mail access.

File Description	Document
Any additional information	[View Document](#)
link for additional information	[View Document](#)

4.3.2 Student - Computer ratio

Response: 297:149

File Description	Document
Student - Computer ratio	[View Document](#)
Any additional information	[View Document](#)

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

Response: ?50 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	[View Document](#)
Any additional information	[View Document](#)

4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

Response: Yes

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	[View Document](#)
Any additional information	[View Document](#)
Link to photographs	[View Document](#)

4.4 Maintenance of Campus Infrastructure

4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

Response: 61.13

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)

2016-17	2015-16	2014-15	2013-14	2012-13
1978.945	2479.955	1391.989	1424.542	1408.052

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	[View Document](#)
Audited statements of accounts.	[View Document](#)
Any additional information	[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:

Laboratory Maintenance

All the equipments and machinery of the laboratories are periodically maintained by the lab technicians. If the equipment/machinery is to be serviced during the warrantee 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. After warrantee period if the equipment/machinery demands service, the technical staff attached to the respective laboratories service the equipment/machinery to the extent possible.

Computer and Accessories Maintenance

Due to the large number of computers and networking, a separate team ITES (Information Technology Enabled Services) look after the maintenance of computers and the networking. With this team, breakdown calls related to systems are quickly resolved.

Campus Maintenance

The people appointed for maintenance of infrastructure, on daily basis would report to the civil engineer of maintenance wing, any breakages and other maintenance requirements, and civil engineer arranges to get them rectified. 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. Fire extinguisher is outsourced since refilling of the cylinder is done once in a year. The drinking water facility to the entire campus is done through RO plant with capacity of 3000 litres/hour.

Electrical Maintenance

Power supply, Generators and Electrical Repairs are looked after by the electrical engineer supported by electricians to facilitate the campus with reliable electric power.The power is supplied by the TNEB with a peak load of 750kVA, and it is augmented by six diesel generators capable of giving a backup power of 1377.5kVA. The generators are meticulously maintained by the technical team. There are 21UPS systems of 650KVA capacity in the campus, for server rooms and the lab equipment needing uninterrupted power supply. They are normally maintained by an AMC. Solar power plant of 78kWP capacity is also maintained by Electrical Maintenance wing.

Library Maintenance and Utilization

The cleanliness of the library is maintained by the campus maintenance team regularly. Electronic Gate Entry system is using for monitoring the user entry of students, faculty and others staff members. All types of counter transactions are done using barcode system. Barcode scanner based stock verification process is carried out every year in the library.

Sports Complex Maintenance and Utilization

Playgrounds, courts and Indoor stadium are well maintained by the ground markers (two members) of the physical education department under the supervision of the physical director on regular basis. These ground markers maintain the track and field regularly with proper marking. Students receive the sports kit from the physical education department for practicing by enter their name and roll number in material issue register and after completing the practice session he/she should return same in physical education store room.

The detailed description with photographs is added in the additional information.

File Description	Document
Any additional information	[View Document](#)
link for additional information	[View Document](#)

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 69.72

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2485	2809	2951	2789	2335

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	[View Document](#)
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	[View Document](#)
Any additional information	[View Document](#)

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

Response: 4.39

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
318	215	117	105	78

File Description	Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	[View Document](#)
Any additional information	[View Document](#)

5.1.3 Number of capability enhancement and development schemes –

1. Guidance for competitive examinations
2. Career Counselling
3. Soft skill development
4. Remedial coaching
5. Language lab
6. Bridge courses
7. Yoga and Meditation
8. Personal Counselling

Response: 7 or more 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 guidance for competitive examinations and career counselling offered by the institution during the last five years

Response: 79.16

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

2016-17	2015-16	2014-15	2013-14	2012-13
3654	3866	4025	1927	1718

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 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years

Response: 72.46

5.1.5.1 Number of students attending VET year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
3056	3866	3093	2673	1228

File Description	Document
Details of of students benefited by Vocational Education and Training (VET)	[View Document](#)
Any additional information	[View Document](#)

5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

Response: Yes

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](#)
Any additional information	[View Document](#)

5.2 Student Progression

5.2.1 Average percentage of placement of outgoing students during the last five years

Response: 52.85

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

2016-17	2015-16	2014-15	2013-14	2012-13
653	750	650	399	333

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

5.2.2 Percentage of student progression to higher education (previous graduating batch)

Response: 26.89

5.2.2.1 Number of outgoing students progressing to higher education

Response: 291

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document
Any additional information	View Document

5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 98.57

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

2016-17	2015-16	2014-15	2013-14	2012-13
39	70	40	77	47

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

2016-17	2015-16	2014-15	2013-14	2012-13
42	70	40	77	47

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File Description	Document
Upload supporting data for the same	
Number of students qualifying in state/ national/ international level examinations during the last five years	
Any additional information	

5.3 Student Participation and Activities

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

Response: 7

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
3	1	1	1	1

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

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

Response:

The institute has Students Guild of Services (SGS), a student body constituted as per the guidelines of MCET. SGS coordinates and executes various activities throughout the year.

SGS is a student body, exclusively made up of students from II to IV years. It is a body of students, for the

students and works to ensure that every student gets the best possible college experience. Every year, a new team consisting of a President, Secretary and about a dozen members to represent areas such as, sports and other curricular and co-curricular activities, is selected from a pool of applicants who wish to serve. SGS selects a team of about 100 Event Management Team volunteers to assist them and all positions are voluntary. Every student is given equal opportunity to apply for various positions. The members are selected by a committee constituted with faculty members from all the Departments.

SGS acts as a messenger between the student body and the management. All the members are responsible to ensure that every student's thoughts, opinions and beliefs are heard by the management. This representation of students to the management is done by conducting periodic general body meetings where the class representatives of all the classes are present to understand the issues related to student life at MCET. They meet the management as and when necessary to inform, discuss and identify possible solutions to issues and relay them back to the students. In short, it encourages students' feedback and shares the College initiatives resulting from student feedback. It provides input to the development of policies and services that support students and advance the quality of learning activities at MCET. SGS actively contributes to the College decision making in relation to the student experience. SGS actively participates in the academic council, curriculum designing, IQAC and Programme Assessment Committee.

Most of the college functions and the annual technical symposium are planned, organized and managed by SGS. SGS marks important events such as Engineer's Day, Teachers' Day, Independence Day, Annual Day, Sports Day etc. with several co- curricular and extra-curricular events and honour the talents of the students. In association with various clubs, SGS organize various social welfare programmes such as, blood donation camp, health awareness camp and so on. They are allocated a budget of about 30 lakhs per year and Director - Student Affairs advices them in this regard.

The Constitution of SGS:

- President
- Secretary
- Vice President
- Joint secretary
- Treasurer
- Deputy Treasurer
- Co-Curricular Coordinator
- Extra-Curricular coordinator
- IT Coordinator
- Sports coordinator
- Event management coordinator

The Institute also encourages student's representations in various Academic and Administrative bodies, such as,

- Professional Body memberships (IEEE, SAE, CSI, etc.,)
- Students Guild of Services (SGS) – Student Body
- Anti ragging committee
- Board of Studies Student member
- NSS & NCC
- Club memberships (Fine arts, YRC/RRC, etc.,)
- Departmental student Association

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

5.3.3 Average number of sports and cultural activities / competitions organised at the institution level per year

Response: 36.4

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
43	43	31	33	32

File Description	Document
Report of the event	View Document
Number of sports and cultural activities / competitions organised per year	View Document
Any additional information	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 non financial means during the last five years

Response:

MCET Alumni Association (MCETAA) was formally inaugurated on 26th January 2003. Since the inauguration, MCETAA has been actively contributing to the institution and the students through various activities. MCETAA is functioning with four chapters (Parent chapter at our institute, Chennai, Bangalore

and Coimbatore). These Chapters jointly conduct various alumni get-togethers and Interactions for maintaining relationships with our alumni all over the world and to involve them in the development of the institute and society. Currently, 10935 alumni have enrolled themselves in the association. A separate website "www.alumni.mcet.in" and Mobile Application "MCETAlumni Association" were launched to connect the alumni among themselves and also with the college. Every year MCETAA organizes Senior (Alumni) – Junior (Pursuing Students) interactions during graduation day in the campus. A distinguished alumnus will be honoured during each Annual day.

The alumni are invited for various programmes organized in the campus like lectures, STEP (Student Talent Enhancement Program), STEP-UP (Student Talent Enhancement Program Unleashing Potential) and BoS (Board of Studies). 15th year reunion of 1998-2002 Batch was held on 16-07-2017. Every department has an alumni coordinator, who keeps in touch with all the other alumni at regular interval.

Alumni Chapter Activities:

- Alumni Lectures
- Awards
- Alumni Chapters – Events & Reunions
- Newsletter
- Student-Alumni meet
- Contributions to the institute – Supports in all areas.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response: ? 15 Lakhs

File Description	Document
Any additional information	[View Document](#)
Alumni association audited statements	[View Document](#)

5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

Response: 106

5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
36	26	27	10	7

File Description	Document
Report of the event	View Document
Number of Alumni Association / Chapters meetings conducted during the last five years.	View Document
Any 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:

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

Nature of governance, perspective plans and participation of the teachers in the decision making bodies of the institution.

The following are the various bodies of the institution constituted as per the recommendations of statutory bodies. Faculty members are involved in decision making, perspective plan in all the following bodies. These bodies meet as per the norms prescribed and take suitable decisions and ensure the implementation of the decisions. The action items from the decisions of these bodies ensure the communication and implementation of various plans towards the realization of the vision through the mission. Other key stakeholders such as nominees of various statutory bodies, senior academics from other institutions, industry experts, parents, alumni, local authorities, support staff and students also are members of some of the following bodies as applicable.

Governing Council

The Governing Council governs the overall functioning of the Institution through other statutory bodies and administration team. The Council reviews the major academic activities, implementation of government policies, financial position of the Institution, performance of students and staff and suggests policies to improve the quality of education at the college.

Academic Council

The Academic Council is the principal academic body of the Institution and shall, subject to the provision of the Rules, have the control over and be responsible for the maintenance of standards of teaching, research and training, approval of syllabus, coordination of research activities, examinations and tests within the Institution

Board of Studies(BoS)

The Board of Studies is the basic constituent of the academic system of the college. Its functions will include framing the syllabi for various courses, reviewing and updating syllabi from time to time, introducing new courses of study, determining details of continuous assessment, recommending panels of examiners under the semester system.

Finance committee

The Finance Committee advises the Governing Council on financial matters. It shall prepare income and expenditure statements of the college in the prescribed format for fixation of tuition and others fees of the college. The Finance Committee will be an advisory body to the Governing Council.

Following are the other supporting arms of the Governance

- Programme Assessment Committee
- Internal Quality Assurance Cell and Strategy Development and Deployment Committee
- Result passing board
- Grievance Redressal Committee
- Planning and Monitoring board
- Purchase Committee
- Discipline and Welfare committee
- Anti-Ragging Committee
- Library Advisory Committee

File Description	Document
Link for Additional Information	[View Document](#)

6.1.2 The institution practices decentralization and participative management

Response:

The administration team consists of the Secretary, the Director (Student affairs) and the Principal. The heads of departments are vested with authority to make decisions with respect to most of their department matters.

The tasks are decentralized and taken care of by the following coordinators in each department:

S.No	Role	Tasks
1	Head of the Department	Responsible for all the academic affairs of the Department. day activities relating to teaching and other workloads of hi non-teaching staff. Looks after the matter related to R & D Research Publications
2	Programme coordinator	Responsible in supporting the HoD for the daily routine department.
3	Industry Academic Partnership coordinator	Responsible for enhancing and sustaining the network w mutual benefits

4	OBE (Outcome Based Education) Coordinator	Responsible for design development and deployment of OBE department
5	Infrastructure coordinator	Responsible for development of department infrastructure as
6	Exam cell coordinator	Responsible for all examination related activities of the de with exam cell
7	OCC (one-credit course) coordinator	Responsible for finalizing, offering one-credit courses in the
8	Professional skills coordinator	Responsible for coordinating the offering of professional ski

Case study on Faculty selection and Purchase of new equipment :

On the academic side, the course allocation to the faculty members is done based on individual's competence and according to the request given by each faculty member. Recommending the faculty and staff members for training / staff development programmes, higher studies, conferences is done by the department head and the recommendation is then considered and approved by the administration team. Sanctioning of requests for on-duty works and leave application of faculty and staff members is done based on the recommendations done by the head of the department. Faculty Selection is carried out by a Selection Committee consisting of respective HoD and HoDs of related disciplines.

The department meeting is convened by the HoD at least once a month or as and when required. The faculty members' view and suggestions are discussed and noted in the meeting. Regarding the purchase of new equipments/software for the laboratory, the suggestions are put forward by the staff in charge of the laboratories and these are further discussed by faculty in-charge of infrastructure development of the department with the head of department for further processing. An imprest account is operated by HoDs for meeting contingency expenditure within the department. All matters with regard to the academics and administration of the department are discussed with the Principal in the HoDs meeting that is convened every week for upward discussion with admin team.

File Description	Document
Any additional information	[View Document](#)

6.2 Strategy Development and Deployment

6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

Response:

Introduction on the progress made through strategic plan:

As per strategic planning the following areas were identified as major thrust areas:

- **ACADEMIC- OBE**
- **STUDENT SERVICES**
- **VALUE ADDED EDUCATION**
- **STAFF DEVELOPMENT**
- **INFRASTRUCTURE DEVELOPMENT**
- **INDUSTRY AND INSTITUTE PARTNERSHIP**

- **RESEARCH AND DEVELOPMENT**
- **COMMUNITY AND RURAL DEVELOPMENT**

A brief on the progress made under the 'Industry and Institute Partnership' thrust area has been given below.

The advent of globalization and rise of a global knowledge economy has intensified the need for strategic partnerships between the industry and academia. The emphasis has shifted to quality products and well trained manpower to sustain in the international scenario, for which the industries now rely on technical institutions for R&D and for supply of highly qualified and skilled manpower. Retaining the skilled work force has been a major challenge for the industries. Hence a strong bond between the two streams has become the need of the hour. Hence MCET decided to explore and identify common avenues of interaction with industry as per the requirements of the institution and collaborate with the industry to bring a symbiotic relationship and offer a mutual benefit. The industry benefits by using academic knowledge base to improve industrial cost, quality and competitive dimensions, reducing dependence on foreign know-how and expenditure on internal R& D. All the departments have identified the industries who are working in the respective domains and partnerships have been established. Through the industry partnership, MCET is imparting Industrial Training / Internship, Orientation Courses, Industrial Visits etc for faculty and students at regular intervals through 2-4-12/24 model. In 2-4-12/24 model, the student training starts from 2nd year vacation for the duration of 2 weeks, then same set of students will attend the training in the same industry for the period of 4 weeks in their 3rd year vacation. Subsequently the same students are encouraged to attend 12 or 24 weeks of training at the same industry during their 8th semester. This enables the student to understand the industrial environment through graded learning of technology, managerial aspects, professional skills etc. This IAP model provides the following benefits:

1. Maintaining talent Supply Chain by inviting MoUs between the industry and the institute.

2. Increasing Core placements by arranging the Value Addition Programs (VAP) where the students can choose any branch specific or interdisciplinary course apart from academics which strengthen their profile.

3. Attaining symbiosis by reducing the gap between industry expectations (practice) and academic offerings (theory) by direct involvement of industry.

Strategic Plan is available in the college website : http://mcet.in/?page_id=8488

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)
Strategic Plan and deployment documents on the website	[View Document](#)

6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

Response:

The Governing Council and other statutory bodies like Academic Council, Board of Studies and Finance Committee ensure the smooth functioning of the Institution. Standard service rules and well established procedures for recruitment, promotion and grievance redressal are available. The same is made available to each Staff member through the 'Staff Hand Book'.

The organizational structure of the Institution is available in institution website and link is provided.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)
Link to Organogram of the Institution webpage	[View Document](#)

6.2.3 Implementation of e-governance in areas of operation

1. **Planning and Development**
2. **Administration**
3. **Finance and Accounts**
4. **Student Admission and Support**
5. **Examination**

Response: All 5 of the above

File Description	Document
Screen shots of user interfaces	[View Document](#)
ERP Document	[View Document](#)
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	[View Document](#)
Any additional information	[View Document](#)

6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

Response:

Body: Academic Council

Action Point: Curriculum and Syllabi shall incorporate Outcome based assessment and evaluation for all courses including practical courses and the outcomes recorded and analyzed. (Discussed in the 3rd Academic Council Meeting held on 5th June 2013).

Action Taken:

Course Outcomes (COs) have been clearly indicated in the syllabi of all courses and the COs have been mapped to Programme Outcomes using the Course Articulation matrix. Outcome based evaluation has been followed in the Internal Assessment component as well as End Semester Examination. The Question Paper template of the Continuous and Comprehensive Evaluation Tests (CCET) includes the outcome relevant to each question as well as the associated Bloom's level. The Tutorial/Quiz/Assignment (TQA) component is also evaluated CO-wise. The data is aggregated to identify the CO attainment levels for each course. The 3-point Likert scale is used for outcome attainment measurement. Additionally, Course Exit Survey is used for indirect measurement of Course Outcomes. Inpods platform – a cloud based outcome assessment solution is used for recording and measuring outcome attainment.

The CO attainment levels are compared with the target levels and the data is analyzed for further improvement in terms of course-specific teaching-learning practices and syllabi revision.

Using the course articulation matrix, Programme articulation matrix and course-wise CO attainment levels, the Programme Outcome attainment is measured. The attainment levels are presented in the Programme Assessment Committee meeting and inputs received from the members are used for further improvement.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

6.3 Faculty Empowerment Strategies

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

Response:

Staff Welfare Schemes

·   Ph.D course work – the management provides 50% of salary, during full time course work period.

·   Supporting staff are permitted for doing B.E., (Part Time) with full salary and 50% of the tuition fees will be paid by the management.

·   MCET Staff Family Benefit Fund (SFBF) has been implemented for the staff from May 2005 onwards with the support of the Management. The

    features of SFBF are:

- Rs.100/- is deducted every month from the salary of staff members. The same amount (Rs.100/-) is contributed by the management.
- Accidental demise, Rs. 25,000/- shall be paid to deceased member's family.
- Family members demise, Rs.5000/- shall be paid to meet funeral expenses.
- At the time of retirement or at the time of relieving from the responsibility total contribution amount will be returned(both staff and   management contribution)

·   NIA Educational Institution Employees co-op Thrift & Credit Society (CP No.116).

- Thrift & Credit society has been implemented for the Staff members from July 2015 onwards with Tamilnadu Co-operative Thrift &   Credit Society act.
- The aim of the society is to encourage the savings habit of the members.
- To sanction loan to the members for their needs at nominal interest for the staff members who have completed minimum 2 years of   continuous service in our institution.
- The maximum loan amount is either Rs.3 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.

1. On the accidental death of staff (Mediguard) an amount of Rs.1,50,000/- can be claimed from the M/s. United India Insurance Company Limited.
2. An amount of Rs.1,50,000/- per annum can be claimed towards Staff Medical Expenses due to hospitalization from Star Health Insurance.
3. In case of death of staff members Rs.6,03,000/- can be claimed from E.P.F. (EDLI) Group Insurance.

Other Staff Welfare Activities

- Superannuation benefits of EPF, Family Pension Scheme for the staff members
- Gratuity Scheme – staff members who have completed 5 years of continuous service are eligible.
- Blazer – 50% of cost will be borne by the institution for the faculty.
- Provide overcoat to all female staff, 50% of cost will be borne by the institution
- Provide shoe once in 2 years, 50% cost of shoe or maximum Rs. 500/- whichever is less for Lab Assistants.
- Hygienic canteens are available for staff /Student.
- Provide Medical facilities to our staff / student and an in house doctor is available for medical aid
- Faculty Deputation for Training provided abroad / industry
- FDP Program sponsorship provided to Teaching / Non-Teaching staff
- Staff Quarters – Senior level staff members are permitted to occupy the quarters as per availability
- Travel Desk - Train, flight and bus tickets can be booked for students and staff members.

Staff Hand Book is uploaded as additional information

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: 25.78

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

2016-17	2015-16	2014-15	2013-14	2012-13
95	80	39	48	59

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc. during the last five years	[View Document](#)
Any additional information	[View Document](#)

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

Response: 34.4

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

2016-17	2015-16	2014-15	2013-14	2012-13
45	45	35	29	18

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document
Any additional information	View Document

6.3.4 Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years

Response: 90.56

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
224	241	229	232	203

File Description	Document
IQAC report summary	View Document
Details of teachers attending professional development programs during the last five years	View Document
Any additional information	View Document

6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

Response:

PERFORMANCE APPRAISAL

Performance appraisal for faculty is carried out in three categories as per the following cadres: Assistant

Professor, Assistant Professor(SS), Assistant Professor(SG) / Associate Professors.

The following are the criteria for performance appraisal of faculty members:

1. Academic Performance: Details of courses handled during the year / Semester, Students' Project handled, Teaching Practice etc.
2. Details of paper published
3. FDP Activities / Programmes Organized
4. Support to Industry – Institute partnership
5. Contribution towards department / institution development
6. Extra-Curricular & Co-curricular activities
7. Contribution towards value based education
8. Sponsored R & D Projects carried out
9. Guidance of Ph.D scholars and
10. Any other Achievements

Faculty members are asked to submit the Self appraisal forms once in a semester. These forms are reviewed by the Performance Appraisal Committee and increments are sanctioned. Separate appraisal forms are available for non-teaching staff also. The following are the nominated members of the Performance Appraisal Committee:

1. Prof.C.Ramaswamy   -   Secretary
2. Dr.A.Rathinavelu, Principal   -   Member
3. Respective Department HoD   -   Member
4. Outside Experts from other Institutions   -   Member

Applications for Career Advancement are called-for periodically based on published norms and faculty will present before the Performance Appraisal committee. Based on the committee recommendation, the faculty members may be elevated to next level.

File Description	Document
Any additional information	[View Document](#)

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

Yes, the institution accounts are audited at regular intervals. Internal team periodically reviews the accounting process.The college has been following annual external auditing system. The accounts and

other related documents have been audited by an external auditor every year. The dates of External Audits are as given below:

FY	Audit Dates
2012-2013	16th-18th July 2013
2013-2014	15th-16th May 2014
2014-2015	22nd-23rd May 2015
2015-2016	6th - 7th May 2016
2016-2017	5th-7th June 2017

File Description	Document
Any 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) (INR in Lakhs)

Response: 70.21

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

2016-17	2015-16	2014-15	2013-14	2012-13
31.85	15.55	6.28	5.75	10.78

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	[View Document](#)
Annual statements of accounts	[View Document](#)

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

Response:

Resources are mobilized by the following means:

- Fees collected from Students
- Funds received from Management
- Grants received from AICTE, UGC and other funding agencies.
- Amount generated through consultancy activity.
- Fees collected through courses conducted by centres of Excellences & value added centres.

The Management is spending money for the campus Infrastructure & department Infrastructure based on the need from each department and section. Optimal utilization is ensured by framing a Budget. Before the commencement of the financial year, budget proposal is collected from all departments. The requests are consolidated and reviewed by the Administration team and funds are allotted. Utilization of allocated funds are monitored periodically and reviewed at the end of the Financial Year

File Description	Document
Any additional information	View Document

6.5 Internal Quality Assurance System

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

Response:

Best Practice: 1. Promotion of Research and Development

Research and development activities are considered as an essential component of higher education because of their role in creating new knowledge and insight and imparting excitement and dynamism to the educational process.

Understanding the importance, IQAC continuously discusses this agenda with Management and in various body meetings and focuses on having partnerships with industries and educational institutions who could support our research.

As a result of constant efforts, and several levels of discussions in various forums, MCET has established Centres of Excellences in collaboration with companies such as Microsoft, TUV Rhineland, SIEMENS, Robert Bosch etc. These Centres acts as facilitator to enhance the skills of the students globally. These centres provide ample opportunity for the students and staff to comprehend the latest industry practice and upgrade their knowledge. Skill-based courses in emerging areas are offered as One Credit Courses through these centres as well. They provide a platform for hands-on training to students in specific domain of their choice.

Memoranda of Understanding (MoU) with eight leading companies:

MoU is signed with eight leading companies viz. M/s Voltech Engineers (Pvt) Ltd, M/s Wind Stream Technologies India, Pvt Ltd, M/s Energy Alternatives India (EAI), M/s Butterfly Group of Companies, M/s India Pistons Ltd, M/s Core EL Technologies (I) Pvt Ltd, M/s SWELECT Energy Systems Ltd and M/s Institute for Solid Waste Research & Ecological Balance (INSWAREB) to work jointly on future technology in the areas of energy and environment.

Memorandum of Agreement (MoA) with educational institutions

MoA with Karunya University and Periyar Maniammai Institute of Science and Technology were finalised

to take up joint research in the field of energy and environment, leveraging on the research capabilities of both partners and MCET

Memoranda of Understanding (MoU) with SAP SE - Walldorf, Deutschland

MoU was signed with SAP SE - Walldorf, Deutschland by the department of IT, MCET. The Purpose of the MoU is to get membership in University Alliances Program Associate.

Establishment of Bosch Diesel System Centre

Bosch Diesel System Centre was established and MoU was signed in the department of Automobile Engineering.

Memorandum of Understanding with Coimbatore Productivity Council

MoU was signed between NIA Educational Institutions and The Coimbatore Productivity Council

Memorandum of Understanding with Mitsubishi Electric India Pvt. Ltd

MoU was signed between MCET and Mitsubishi Electric India Pvt. Ltd. Mitsubishi Electric India Centre for Factory Automation was established at MCET campus. An amount of Rs.8.1 Lakh was invested for purchasing of Automation & Mechatronics Trainer Kits (4 Nos.) to this centre.

Establishment of Factory Automation centre

Factory Automation Centre was established with Mitsubishi Electric India 16 for circuit stream departments.

Launch of MCET - BOSCH Rexroth (Regional Centre of Competence in Automation Technologies

In order to train and improve the skills of Mechanical and Automobile students in automation technologies, a centre of excellence is created at MCET. MoU with BOSCH Rexroth Group was signed and Regional Centre of Competence in Automation Technologies was inaugurated at MCET Campus.

Memorandum of Understanding with M/s Harita Techserv Ltd

MoU was signed between MCET and M/s Harita Techserv Ltd, Chennai for setting up of the Research Centre on New Product Development and Manufacturing Technologies.

Best Practice: 2.Stream wise orientation programme for the students

In order to enhance the subject knowledge of the Students, IQAC in collaboration with department has planned to conduct minimum one programme per year for each department.

Following are some of the programmes conducted for the students during the academic year 2016-17.

Sl. No	Name of the programme	Department	Students Benefitted

1	One day workshop on "Python programming"	IT	51
2	One day workshop on "Android Application development"	CA	134
3	A programme on "Genetic Algorithm and Engg Optimization"	Auto	24
4	Two day workshop on "FPGA Programming and its application"	ICE	36
5	Two day workshop on "FPGA Programming and its application"	EIE	36
6	Two day workshop on "Cloud Computing and Big Data"	IT	55
7	One day seminar on "Intellectual Property Rights"	CSE	65
8	One day workshop on RF Circuit Design Using ADS	ECE	27
9	Two day workshop on "Energy Auditing and Management"	EEE	40
10	Guest Lecture on "Manual Testing in Industrial Perspective"	IT	80
11	Lecture on "Internet of Things (IoT)"	IT	80
12	"College to Corporate" – a one day Programme	CSE	22
13	"Lean Six Sigma Green belt certificate course"	Mech	25
14	Recent Advances in Structural Engineering (RAISE – 2017)	Civil	Civil Students
15	A Guest Lecture on "Real Time Applications of Machine Learning"	IT	IT Students
16	A Guest lecture on "Awareness on Industrial Safety"	Mech	Mech Students
17	Two day workshop on "OpenStack Private Cloud"	IT	67
18	Two Day Workshop on "Sensors &Motion Control, Robotics and its Applications"	EIE	38
19	One Day Workshop on "Usage of various transducers in structural engineering"	Civil	46

20	A Workshop on "SAP Design Thinking and Prototyping"	IT	30	

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

Response:

Teaching learning process and Outcomes

IQAC Contribution on Teaching & Learning processes:

IQAC Contributes/Monitors/Evaluates the Teaching & Learning processes by:

1. Putting in place an academic calendar
2. Organising teaching and learning by the preparation of pedagogic contents like course plan,
3. Lesson plan and learning materials with the help of OBE division.
4. Advocating use of multi-mode learning experiences and appropriate methods of teaching.
5. Offering value added courses for skill development.
6. Maintaining assessment records.
7. Working on the feedback received from various stakeholders
8. Conducting Faculty Development programmes to enhance faculty competency.
9. Continuous evaluation through CCETs, Tutorials, Assignments.
10. Conduct of Academic Audits.
11. Encouraging student's participation in national and international technical events
12. By facilitating practical learning through industry internship.

Method of measuring attainment of POs and PSOs:

The course outcomes are stated in the syllabus of each course. For every course the course articulation matrix is prepared, which identifies the affinity of each CO with the POs and PSOs of the programme. From the course articulation matrices of all courses of the programme the programme articulation matrix is prepared. From the attainment values of COs of the courses the attainment levels of the POs and PSOs are computed by weighted average using the programme articulation matrix.

Mechanism of Communication:

The Program outcomes, program specific outcomes and course outcomes for all programs are offered by the institution are displayed on the college website and in prominent places in the departments such as, Noticeboard, Office, Library and class rooms, Laboratory Noticeboards, Department Handout and Brochure, Department Association Newsletter and so on.

These results are discussed in detail in the IQAC review meetings and reforms which could help to enhance the teaching quality are brainstormed and taken forward.

Reforms:

1. Curriculum and Syllabi Redesign

Outcome Based Education(OBE) methodology is incorporated in all programmes with intensive inputs from stakeholders. Revising the curriculum, syllabus and evaluation methodology is done to ensure realization of stakeholder expectations.

For Mechanical department, Collaborative education programme with TVS Motor Company Ltd was implemented by signing of MoU between TVS Motor Company Ltd. Chennai and MCET for Collaborative Education Program.

Curriculum and syllabi of Civil, IT and circuit streams are designed in consultation with industry specialists and educational experts based on OBE methodology. Several companies were contacted for inputs on redesign of curriculum. The process of curriculum redesign on OBE methodology was discussed in the BoS meetings and Academic council meeting and the suggestions from the members were well taken and incorporated.

Teaching and learning process is made more structured by the preparation of pedagogic contents like course plan, lesson plan and learning materials. Workshop on Teaching-learning series and Pedagogic training was conducted to the HODs and Faculty members. Workshop to newly joined faculty members on soft skills were conducted to enhance the quality of teaching.

2.Skill Development

Several Centres of Excellences in collaboration with companies such as Microsoft, TUV Rhineland, SIEMENS and Robert Bosch were established. It facilitates the necessary infrastructure to enhance the skills of the students globally. These centres provide ample opportunity for the students and staff to comprehend the latest industry practice and upgrade their knowledge. Skill-based courses in emerging areas are offered as One Credit Courses through these centers as well. They provide a platform for hands-on training to students in specific domain of their choice such as Hadoop & Hive, Product Life Cycle Management, Geometric Dimensioning & Tolerancing (Gd&T).

Student Talent Enhancement Program (STEP) and STEP-UP (Unleashing Potential) are offered from the first to final year during which the students interact with senior professionals from global industries and take their advice for career goal setting, and kindle the spirit of enquiry and build industry relevant skills to become globally competitive engineers/entrepreneurs.

To enhance and foster English communicative competence among students in order to meet out the requirement of global job avenues, a new module "Speaking Activity" for first year students and "LSRW

activities" for the second and third years is introduced.

File Description	Document
Any additional information	[View Document]()
Link for Additional Information	[View Document]()

6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

Response: 11.4

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
20	19	8	5	5

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	[View Document]()
Any additional information	[View Document]()
IQAC link	[View Document]()

6.5.4 Quality assurance initiatives of the institution include

1. **Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements**
2. **Academic Administrative Audit (AAA) and initiation of follow up action**
3. **Participation in NIRF**
4. **ISO Certification**
5. **NBA or any other quality audit**

Response: Any 4 of the above

File Description	Document
e-copies of the accreditations and certifications	[View Document](#)
Details of Quality assurance initiatives of the institution	[View Document](#)
Any additional information	[View Document](#)
Annual reports of Institution	[View Document](#)

6.5.5 Incremental improvements made during the preceding five years *(in case of first cycle)* **Post accreditation quality initiatives** *(second and subsequent cycles)*

Response:

MCET strongly believes that adopting continuous-improvement strategies will enable institution to achieve its vision. Several quality enhancement initiatives have been implemented as given below:

1.Adoption of Outcome Based Education model:

Realizing the need for transformation in the engineering educational system, MCET started to collaborate with the industries, institutions and other experts to develop programmes and courses on the OBE model since 2014. MCET has also inducted adjunct faculty with vast industrial experience to add value to the model.

2. Introduction of Choice Based Credit System (CBCS):

CBCS is introduced in MCET in which students have an option to choose from the prescribed courses. They can learn at their own pace and the entire assessment is grade-based on a credit system.

3. Introduction of Centres of Excellence:

MCET has established several Centres of Excellence in collaboration with companies such as Microsoft, TUV Rhineland, SIEMENS, Robert Bosch etc. Skill-based courses and hands-on training in emerging areas are offered as One Credit Courses through these centres.

4. Introduction of Professional Skills Course:

The institution offers SIX professional skills courses to students of all undergraduate programmes as credited courses in the curriculum which address issues on wellness, gender, values, ethics etc.

5. Linguistic Competency Development

Language Learning Centre (LLC) develops students' linguistic competency through various programs for students from First year through Third year. LLC offers LSRW (Listening, Speaking, Reading and Writing) program as well as Spoken Hindi, IELTS (International English Language Testing System) training and BEC (Business English Certificate) training. LLC also trains interested students in French,

German and Japanese.

6. Use of ICT:

To adopt quality teaching learning methods with the use of ICT, online resources like Massive Open Online Course(MOOC) and Spoken Tutorial have been adopted for enhancing the learning experience of students. Selected modules of NPTEL lectures are made available in DSPACE, the college intranet portal carrying learning resources. The college is the nodal centre for the IIT Bombay and IIT Kharagpur online STTPs.

7. Promoting Research Climate:

Five departments have been recognized as Research centres and MCET promotes research climate by:

- Encouraging the staff members to undertake major and minor research projects and to organize seminars, workshops and conferences.
- Motivating faculty members to pursue Ph.D and publish research papers in journals.
- Providing institutional funds to student's competition projects like SAE Supra, BAJA, GoKart and Formula Student (Spain).

8. Formation of CIBIE:

CIBIE – Centre for innovation, business incubation and entrepreneurship and campus automation was created with the purpose of stimulating entrepreneurial culture amidst students. CIBIE also focuses on identifying, funding and incubating innovative product development activities. As an outcome seven start-ups have been incubated in the campus.

9. E-Governance:

MCET has implemented e-governance in various spheres through the College website, MCETEdu app and Alumni app.

File Description	Document
Any additional information	[View Document](#)

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

Response: 20

7.1.1.1 Number of gender equity promotion programs organized by the institution year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
5	5	4	3	3

File Description	Document
List of gender equity promotion programs organized by the institution	[View Document](#)
Any additional information	[View Document](#)

7.1.2 Institution shows gender sensitivity in providing facilities such as
a) Safety and Security
b) Counselling
c) Common Room

Response:

The institution is a co- educational engineering college equal preference is given to all genders in all aspects. Admission of students are carried out in accordance with the norms prescribed by the AICTE and State Government. Female students excel in their performance and they have served as president, vice –president of Students Guild of Service(SGS), a forum exclusively run by students for the students. Female physical education instructor and female yoga instructor are available to take care of the overall development of the female students. Institution has a Student counselor Ms. Pouline Shanthi at A112 for counseling the students.

Separate ladies hostel is available in the campus with a capacity of 714 for girl students with resident proctors for guidance and counseling. Well furnished rooms are available for their comfortable dwelling. Facilities like internet browsing, inbuilt canteen, and Xerox centres . are available for the convenience of the residents.

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

institution. Common rooms and rest room facilities are available within the institutional premises.

Among teaching and supporting staff nearly 31% (125/392) of the faculty members are women and 13% (12/89) of the women faculty are Ph. D holders actively involved in research, and 20% (18/89) of the women faculty are pursuing their research programme. Women faculty members are regularly participating in seminar, conference, workshops and faculty development programmes. They hold positions in the institution in several levels such as Head of Departments, staff selection committee member, board of studies member and so on. Maternity leave facilities are available for the women faculty as per college norms.

A forum for women "YuvaSakthi" functions in the institution since 2004. The celebration of International Women's Day is a prestigious function in the campus with all its uniqueness and enthusiasm on 8th March every year. Exclusive competitions are conducted for female students and staff to bring out their inherent talents. Best outgoing female students are selected and awarded with YuvaSakthi award and meritorious certificate. Eminent female personalities are invited as chief guest to address gender sensitive issues and motivate the female students and staff. Best performing women in the society in various fields are identified every year and invited as awardees and bestowed with YuvaSakthi award and honoured. Their life experience gives confidence, motivation and guidance to the budding young women folk. In commemoration of the 10th year of its functioning, YuvaSakthi Endowment was created and YuvaSakthi scholarships are provided to the female students on merit cum means basis every year.

7.1.3 Percentage of annual power requirement of the Institution met by the renewable energy sources

Response: 8.78

7.1.3.1 Annual power requirement met by renewable energy sources (in KWH)

Response: 64831

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	[View Document](#)

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 50

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 72137

File Description	Document
Details of lighting power requirements met through LED bulbs	[View Document](#)
Any additional information	[View Document](#)

7.1.5 Waste Management steps including:
- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

Response:

Solid waste management

Efforts have been taken to recycle and reuse the waste generated inside the campus. The food waste generated in the campus is used for the production of biogas. The 2 Hu-Methane Gas Plant in the campus generates about 70m3 per day. The gas generated in the units is used in the hostel kitchen. This helps minimizing the use of LPG cylinders in the kitchen.

Liquid waste management

A waste water recycling plant is being constructed in the campus for purification of the waste water generated.

E-waste management

The number of computers and accessories purchased are increased considerably over the years as the College is gradually switching over to paperless concept. E-waste management is dealt with concern as this affect the environment negatively. Condemned devices and materials from computer lab are sold to the e-waste management companies in Coimbatore and Erode. Most often, the minor repairs are taken care of by the lab technicians and the staff major repairs by the professionally trained personnel. UPS batteries are recharged or repaired whenever possible or exchanged with the supplier when condemned. A constituted committee gives recommendations and suggestions on disposal of e-waste in aspects of to whom to dispose and when the disposal of e-waste could be done.

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

Due to the increase in intake of students over years, water requirement in the campus has increased considerably. To meet the water demands, the College has not only used new water sources but initiated a few water conservation projects which help in charging the aquifers and keeping the underground water

undisturbed.

One of the notable green practices in the campus is that all the 24 buildings in the campus have rainwater harvesting unit. The harvested rain water from all the 24 buildings are fed in to the storage well inside the campus. The rain water harvesting units were constructed with the inputs from the Department of Civil Engineering, MCET. This helps in increasing the underground water table in the campus impacting the environment positively besides being a source of drinking water.

MCET clearly demonstrates that with determination and the interest to be self-sufficient, large campuses with colleges, hostels, and schools can solve their water scarcity problems by developing sustainable models by harvesting rainwater. Rainwater harvesting besides being environmentally benign, is an economic practice as well. These units will significantly reduce the financial burden that most such institutions currently face due to over dependence on water tankers.

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

7.1.7 Green Practices
- **Students, staff using**
a) **Bicycles**
b) **Public Transport**
c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

Response:

As reflected in its core values the institute commits itself to environmental conscious practices.

To reduce the use of plastic water bottles, RO water outlet is fixed in about 125 points. Use of steel water bottle is encouraged inside the campus.

Battery operated car is available for transportation inside the campus. Owing to green campus and conducive climate, there is no need for bicycles for commuting inside campus. There are clearly marked pedestrian pathways and stanchion kept where ever needed.

The utilization of tablet computers and intranet and internet modes of communication enable reduction of paper usage. Furthermore, the campus serves as the homage for over 27 types of tree which include a few rare species. The campus also has initiated urban forest drive by planting and nurturing native plant species.

International conference on Renewable Energy and Sustainable Environment is conducted once every two

year with two conferences on record. The College has signed MoUs with industries to work on renewable energy.

File Description	Document
Any additional information	[View Document]()
Link for Additional Information	[View Document]()

7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

Response: 0.67

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year-wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
5	25.04	6.49	43.49	18.2

File Description	Document
Details of expenditure on green initiatives and waste management during the last five years	[View Document]()
Any additional information	[View Document]()

7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

1. **Physical facilities**
2. **Provision for lift**
3. **Ramp / Rails**
4. **Braille Software/facilities**
5. **Rest Rooms**
6. **Scribes for examination**
7. **Special skill development for differently abled students**
8. **Any other similar facility (Specify)**

Response: C. At least 4 of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
Any additional information	View Document
link to photos and videos of facilities for Divyangjan	View Document

7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

Response: 89

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
24	30	8	22	5

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document
Any additional information	View Document

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

Response: 47

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
10	13	11	6	7

File Description	Document
Details of initiatives taken to engage with local community during the last five years	
Any additional information	

7.1.12
Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes

File Description	Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	

7.1.13 Display of core values in the institution and on its website

Response: Yes

File Description	Document
Provide URL of website that displays core values	

7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

Response: Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	
Any additional information	

7.1.15 The institution offers a course on Human Values and professional ethics

Response: Yes

File Description	Document
Any additional information	View Document
Provide link to Courses on Human Values and professional ethics on Institutional website	View Document

7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

Response: Yes

File Description	Document
Any additional information	View Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years

Response: 83

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
14	19	16	19	15

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

Response:

The institute celebrates the national festivals and birth/death anniversary of great Indian personalities. The following are such festivals/functions:

- Independence day
- Republic day
- International women's day
- Teachers day
- Engineers day
- National science day
- National Education day
- Sadbhavnadiwas
- Dr.APJ Abdul Kalam Death Anniversary
- Armed force flag day
- SwamyVivekanada 150th Birth Anniversary
- RashtriyaEkthaDiwas (SardarVallabhai Patel birth anniversary)

Every year the institute celebrates the functions of national importance and celebrates the birth / death anniversaries of national leaders. The Independence Day and the Republic Day are celebrated in a befitting manner with drill parades of NCC students and skits on social themes by NSS volunteers. The teacher's day is also celebrated every year with the Students Guild of Service(SGS) conducting special programmes/competitions for the faculty members and marking the reverence to the teachers by presenting memorabilia to all the teaching team of the college. Also the commemoration of the anniversaries of other national leaders is celebrated with the speech for the soul by reputed speakers.

National Education Day was celebrated in commemoration of the Birth Anniversary of Maulana AbulKalam Azad (The First Education Minister of India) by ISTE-MCET Staff Chapter on 11th November 2013. A technical seminar on "Towards better Institute-Industry Interaction for Co-creating R&D solutions" was given by Mr. V. Bhaskar, Former General Manager, Engine R&D, M/s Ashok Leyland Ltd.

Birth anniversary of MaulanaAbulKalam Azad was celebrated on 27.11.2015 in the college campus. An online essay competition on the topic "Importance of education and the Nation's commitment in all aspects of Education" was conducted at Hall C-121 in our campus and 94 NSS volunteers participated in the competition.

The 3rd international Yoga Day was observed in the college on 21 June 2017 from 6.30 am to 9 am., in which the students of the college, NSS and NCC student volunteers, faculty members, students from the sister institutions namely polytechnic and schools and volunteers from the public participated enthusiastically.

The programme was inaugurated by Dr.C.Ramaswamy, Secretary of the college and other dignitaries felicitated. Swami ThathevanandaSaraswathi spoke on the meaning and usefulness of Yoga to mankind.

YogacharShri.M.M.Rajan demonstrated the different yogasanas one by one explaining the benefit of each. Following his instructions, the yogasana was done by the audience. He also explained the common yoga protocol of AYUSH.

The programme was attended with great fervor by well over 400 participants of different generations.

7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions

Response:

The institution maintains transparency in all its procedures.

The academic calendar, schedule of tests and examinations are adequately intimated to the staff members and students. Curriculum and syllabi of various regulations are uploaded in the college website and intranet. Software based maintenance of student academic data like attendance and continuous evaluation marks enable transparency of the teaching learning process to the students. The students can also peruse the copy of exam answer scripts and opt for revaluation for improving upon the marks. Inclusion of student members in committees like Board of Studies, Academic Council promotes transparency in the decision making process.

Administrative functions are carried out with guidance of well-developed procedures. The rules and regulations governing faculty progression and benefits are spelt out in the service rules book. The HR department clarifies any ambiguity in this regard.The student fees are collected as per norms. The pay scale and salary received are duly acknowledged in the acquittance register.

The code of conduct and other student related information are mentioned in the annually released student handbook.

7.2 Best Practices

7.2.1 Describe at least two institutional best practices (as per NAAC Format)

Response:

1) Offering Courses for Professional Skills:

Objective:

Professional Skills (PS) courses enable the students to imbibe all those skills and behaviors that are needed to be successful in their professional and personal life. These courses are offered for developing their behavioral competencies.

The Context:

Technical Courses develop technical expertise, needed for becoming a proficient engineer either as an employee in a company or as an entrepreneur.

PS courses help the students understand, assimilate and demonstrate the skills that bolster their strength to perform their duties to the highest level of excellence, fairness and satisfaction to self and all concerned, at all times.

The Practice:

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

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

Evidence of Success:

All students maintain a personal journal that helps the students to reflect the learning in their real life. The students understand that their wellbeing improves as is evidenced in their BMI, behaviour, emotional and psychological aspects, etc.

Resources:

Resources such as Yoga hall Gym are available. Professionally designed workbooks and expert instruction is also available for these courses. The faculty members are trained to facilitate the orientation of the courses.

2) Linguistic Competency Development

Objective:

Develop students' linguistic competency.

The Context:

The success of engineering graduates at the time of placement interview, higher studies, civil services exam and business situations largely depends upon their excellent communication skills in English and proficiency in Hindi and other Foreign Languages. With a view to increase professional competency of our students, the college established Language Learning Centre (LLC) that develops students' linguistic competency through various programs from First year through Third year.

The Practice:

Apart from the First year English paper, LLC offers LSRW program to all the first year second year and third year students to promote a holistic approach towards language learning. All the first, second and third year students have two hours per week to practice their language in a real time environment. One English faculty and one Department faculty help the students and apart from the faculty members there are student volunteers who conduct the class to help their friends.

To make students join the national main stream, LLC offers Hindi to all the second year students during the 4th semester and all the third year students during the 5th semester. Besides LSRW, LLC offers IELTS, BEC, French, German and Japanese.

Evidence of Success:

Many students clear the language certification and testing exams across foreign languages. Students are comfortable after getting selected to work for companies in north India. Students perform progressively better in the placement drives.

Resources:

Well-equipped language learning center is available along with other requisite resources for language learning.

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

7.3 Institutional Distinctiveness

7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

Response:

Practical training and projects using Centres of Excellence & industry networking

Going by the vision "globally competitive workforce and entrepreneurs", the college is striving to offer the best of facilities so that students can have hands on practical training and do industry related projects.

Accordingly, MCET has established FIFTEEN Centres of Excellences in collaboration with companies such as Microsoft, TUV Rhineland, SIEMENS and Robert Bosch. It facilitates the necessary infrastructure to enhance the skills of the students globally. These centers provide ample opportunity for the students and staff to comprehend the latest industry practice and upgrade their knowledge. Skill-based courses in emerging areas are offered as One Credit Courses through these centers as well. They provide a platform for hands-on training to students in specific domain of their choice such as Hadoop & Hive, Product Life Cycle Management and Geometric Dimensioning & Tolerancing (GD&T) etc.

Student Talent Enhancement Program (STEP) and STEP-UP (Unleashing Potential) are offered from the first to final year during which the students interact with senior executives from global industries and take their advice for career goal setting, and kindle the spirit of enquiry and build industry relevant skills to become globally competitive engineers/entrepreneurs.

Centre for Innovation, Business Incubation and Entrepreneurship helps in "Transforming Idea into Business Venture". It is a student centric initiative by MCET aimed at fulfilling students aspirations by: Nurturing and supporting student innovations and business ideas to fructify into mature business propositions. CIBIE supports new age enterprises at the campus by providing infrastructure and incubation support.

The techno-commercial centers such as Caresoft, ABTInfo.net within the campus provide opportunities for the students to get global exposure locally in the campus.

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

5. CONCLUSION

Additional Information :

The college is constantly trying to explore new academic models for the benefit of all stakeholders. Campus Connect Programme with Infosys, Campus Commune Programme by TCS, Collaborative Educational Programme with TVS Motor Company are few examples of the above.

NIA skill foundation is a new venture started with an objective of skilling un-employed youth, practicing engineers and others on latest practices in the industry though programmes in the centers of excellence. Also it enables offering finishing school courses for students.

Fast tracking of courses, industry attachment in the 2-4-12/24 weeks model, internships, student talent enhancement programmes, motivational programmes, language training (LSRW: Listening-Speaking-Reading-Writing), international certifications (BEC, IELTS, Microsoft, Cisco. Etc), club activities for character and competence development, one credit courses taught by industry experts, value added course certifications, etc. have created meaningful learning experiences for students in the institution.

Staff and student welfare measures are always a priority for the institution. Worthy student projects are funded adequately, which has resulted in many inter-disciplinary projects being executed by the students for various competitions in the country and abroad. The institution provides scholarships aplenty to the students apart from other welfare measures such as insurance cover for them and their parents, medals, cash awards, support infrastructure for startup etc. Staff is also covered under insurance. They also have membership in staff family welfare benefit fund, thrift society etc. They are sponsored for higher studies as well.

Concluding Remarks :

The college has absorbed the recommendations given by regulating and accrediting authorities and feedback from its key stakeholders for its continual improvements in the curriculum, policies and procedures.

OBE model, Choice Based Credit System, fast tracking of courses, domain based electives, one credit courses, Professional Skills courses, Industry Attachment Programme, Student Talent Enhancement Programme, co-curricular and extra-curricular activities along with teaching learning processes and appropriate use of ICT tools strive to improve all round student performance.

The management has been ever agile in improving and maintaining facilities.15 Centres/Centres of Excellence established with technical, infrastructural and financial support of renowned industries and the FIVE departments recognized as research centers have strengthened research, consultancy and training.

UG programmes in Mechatronics and Production Engineering have been recently introduced leveraging opportunities/associations available in/with companies like TVSM, Bosch Rexroth, Western Thomson, Roots, Butterfly and Janatics.

The involvement of students, faculty and staff in various management functions shows the consciousness of aiding participatory management in concert with its core values, maintaining high levels of transparency.

Campus environment upkeep and energy consciousness have been given conscious thrust. The greenery of the campus with some rare species of trees, provides a conducive environment for learning.

The institute will continuously improve on the educational services to the students and development of community. NAAC accreditation will give vivid directions and renewed vigor for future endeavors. In the near term the college will try to obtain the College of Excellence status awarded by UGC.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification
1.1.3	Average percentage of courses having focus on Employability/ Entrepreneurship/ Skill development during the last five years 1.1.3.1. Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years Answer before DVV Verification: 	2016-17	2015-16	2014-15	2013-14	2012-13
---	---	---	---	---
564	586	602	592	584 | Answer After DVV Verification : | 2016-17	2015-16	2014-15	2013-14	2012-13
---	---	---	---	---
562	575	602	592	584	 Remark : As per data provided by HEI.
1.2.2	Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented 1.2.2.1. Number of programmes in which CBCS/ Elective course system implemented. Answer before DVV Verification : 21 Answer after DVV Verification: 21
1.3.3	Average percentage of students enrolled in the courses under 1.3.2 above 1.3.3.1. Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years Answer before DVV Verification: 	2016-17	2015-16	2014-15	2013-14	2012-13
---	---	---	---	---
3654	3866	4025	3890	3712 | Answer After DVV Verification : | 2016-17	2015-16	2014-15	2013-14	2012-13
---	---	---	---	---
3654	3866	3996	3890	3712	 Remark : As per documents attached.
1.3.4	Percentage of students undertaking field projects / internships 1.3.4.1. Number of students undertaking field projects or internships Answer before DVV Verification : 2859

2.1.3	Answer after DVV Verification: 2747
2.1.3	Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years 2.1.3.1. Number of actual students admitted from the reserved categories year-wise during the last five years Answer before DVV Verification: Answer After DVV Verification :

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
512	605	613	756	751

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
496	578	586	735	733

2.3.2	Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. 2.3.2.1. Number of teachers using ICT Answer before DVV Verification : 251 Answer after DVV Verification: 243
3.2.1	Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments,Chairs in the institution during the last five years (INR in Lakhs) 3.2.1.1. Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs) Answer before DVV Verification:

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
20.112503	40.01	32.68	2.25	45.25

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
45.75	4.00	32.68	22.50	45.25

Remark : Supporting document provide by HEI does not match.

3.3.2	Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry - Academia Innovative practices during the last five years

3.3.2.1. Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
50	34	22	8	0

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
45	34	22	8	0

| 3.3.3 | Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years

3.3.3.1. Total number of awards for innovation won by institution/teachers/research scholars/students year-wise during the last five years
Answer before DVV Verification:

|-------|

2016-17	2015-16	2014-15	2013-14	2012-13
190	138	135	73	66

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
178	105	112	46	47

| 3.3.4 | Number of start-ups incubated on campus during the last five years

3.3.4.1. Total number of start-ups incubated on campus year-wise during the last five years
Answer before DVV Verification:

|-------|

2016-17	2015-16	2014-15	2013-14	2012-13
5	1	0	0	0

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
3	1	1	0	0

| 3.4.5 | Number of research papers per teacher in the Journals notified on UGC website during the last five years

3.4.5.1. Number of research papers in the Journals notified on UGC website during the last five years
Answer before DVV Verification:
|-------|

2016-17	2015-16	2014-15	2013-14	2012-13
59	57	34	22	24

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
277	241	168	101	94

Remark : Supporting document provide by HEI does not match.

3.4.6	Number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings per teacher during the last five years

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
153	129	90	59	54

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
242	78	71	63	29

3.4.7	Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

3.4.7.1. Total number of citations received by publications in the last 5 years, which are included in online databases such as SCOPUS, web of science or PubMed/ Indian Citation Index
Answer before DVV Verification : 528
Answer after DVV Verification: 133

Remark : Supporting document provide by HEI does not match.

3.6.2	Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
6	2	5	7	6

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	Answer After DVV Verification :				
	2016-17	2015-16	2014-15	2013-14	2012-13
	7	2	3	8	5

3.6.3	Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

3.6.3.1. Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
26	27	26	20	12

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
26	34	24	18	9

3.6.4	Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

3.6.4.1. Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
2036	1729	1100	1405	918

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
2036	1729	1100	1405	918

3.7.1	Number of Collaborative activities for research, faculty exchange, student exchange per year

3.7.1.1. Total number of Collaborative activities for research, faculty exchange, student exchange year-wise during the last five years

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13

| 48 | 19 | 8 | 9 | 11 |

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
50	19	7	4	6

3.7.2 Number of linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the last five years

3.7.2.1. Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
390	425	194	96	4

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
410	389	194	89	5

3.7.3 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)

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
13	9	7	7	7

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
11	7	5	5	4

5.2.1 Average percentage of placement of outgoing students during the last five years

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
705	768	688	513	451

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
653	750	650	399	333

5.2.3	Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
52	108	58	89	58

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
42	70	40	77	47

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

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
54	51	43	23	31

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
3	1	1	1	1

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

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
87	78	34	42	53

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
95	80	39	48	59

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

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
45	45	35	29	18

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
45	45	35	29	18

2.Extended Profile Deviations

ID	Extended Questions
1.1	Number of programs offered year-wise for last five years

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
18	18	17	17	17

Answer After DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
18	17	17	17	17

1.3	How many self-financed Programs does the institution offer

Answer before DVV Verification : 19

Answer after DVV Verification : 18

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
1082	1144	1090	979	877

Answer After DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
1082	1144	1090	980	877

3.1	Number of courses in all programs year-wise during the last five years

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
564	586	602	592	584

Answer After DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
562	575	602	592	695

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