



SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

MAHENDRA COLLEGE OF ENGINEERING

MAHENDRA COLLEGE OF ENGINEERING, ATTUR MAIN ROAD,
MINNAMPALLI, SALEM 636106

636106

www.mahendracollege.com

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

August 2018

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

1.1 INTRODUCTION

Mahendra College of Engineering (MCE) was established in the year 2005 by Thiru. M.G.Bharathkumar, Founder Chairman as a self-financing Engineering College. This institution is located in a sprawling campus of about 18 acres at Minnampalli near Ayothiapattinam, 18 kms from the Salem City on the Chennai Highway. It is approved by All India Council for Technical Education and affiliated to Anna University, Chennai.

The Institution started functioning from the academic year 2005-06, with an intake of 240 students and 17 faculty members, offering under graduate degree programmes in Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering and Information Technology .In the subsequent years, four more UG and seven PG programmes were started.Presently it has a total strength of about 2000 students and 261 faculty members offering 8 UG and 7 PG programmes including M.B.A. & M.C.A.

MCE graduates are placed in a diverse range of organizations. Many students have chosen their higher studies and many have become entrepreneurs.MCE has many credentials under its fold. The departments of CSE, IT, ECE, EEE and Mechanical Engineering have been recognized by Anna University as “Research Centres” to carry out research programs leading to Doctoral Degree.

MCE has made large stride in Engineering Education and has emerged as one of the pioneering Institutions in the region. MCE will continue to strive hard and work towards achieving its Vision.

Vision

Mahendra College of Engineering is committed to be a leader in Higher Education achieving excellence through world class learning environment for Science and Technology with a blend of advanced research to create ethical and competent professionals

Mission

- To provide a conducive atmosphere to impart innovative knowledge and commendable skills through quality education by continuous improvement and customization of teaching.
- To nurture research attitude and bring about tangible developments with dynamic Industry - Institute Interaction.
- To create society oriented citizens with professional ethics.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- ? Pro-active management and good academic background.
- ? Well disciplined and conducive atmosphere for learning.
- ? Participative work culture.
- ? Neat and clean campus.
- ? Excellent Placement Records.

Institutional Weakness

- ? Students from rural Background are lacking in communication skills.
- ? Not many industries in diversified fields surrounding the institution.
- ? Non availability of residential facility for faculty members.

Institutional Opportunity

- ? To become an Autonomous Institution.
- ? To undertake Testing & Consultancy Work with local industries.
- ? Participation of Alumni in enhancing the employability of graduates.
- ? Initiating “Start-ups” within the institution.

Institutional Challenge

- ? Maintaining intake at the sanctioned level.
- ? Getting R&D projects with funding from the Government sector.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The Institution is affiliated to Anna University, Chennai. The curricula and syllabi are prescribed by the University. Hence there is limited flexibility in design of curriculum.

Effective curriculum delivery is ensured through the process given below:

- Prior planning of academic activities
- Formulation of objective driven lesson plan.
- Preparation of adequate learning materials.
- Maintenance of course files by faculty.
- Remedial Classes for slow learners.
- Curriculum enrichment through mini projects, seminars and project works.
- Mentoring system.
- Periodic review of teaching-learning process by the IQAC.
- Structured feedback system.
- Systematic examination process with intimation of performance reports to parents.
- Guest lectures, seminars, industrial visits and training programmes, Refresher Courses, workshops and FDPs for Students' up gradation.

Teaching-learning and Evaluation

- Transparent admission process through centralized admission process of the University.
- Institution follows the reservation policy of the State Government.
- Different categories of students are taken care through merit scholarships and fee concessions.
- Awareness and motivation programmes are conducted at regular intervals.
- Remedial classes are conducted for slow learners.
- Institution follows the academic calendar of the University.
- Institution has developed mechanism for continuous monitoring of students' progress.
- Continuous Internal Evaluation in place for internal assessment.
- University Examination Results are analysed and actions taken for Improvement.

Research, Innovations and Extension

- Institution has recognition for five departments to take up research work, from Anna University, Chennai. Hence five departments are having Anna University approved research centers.
- Management encourages participation of faculty in conferences and seminars.
- Research culture spreads across all programs and departments.
- Incentives given to the faculty publishing journal papers.
- Institution conducts conferences and workshop sponsored by various agencies.
- Students participate in various community network programmes through NSS.
- MoUs with well known Industries are in place.

Infrastructure and Learning Resources

- Good Infrastructure facilities for academic, co-curricular and extra-curricular activities.
- Hostel facilities for Boys & Girls are available.
- Library has a stock of 9500 titles and 35812 volumes.
- 642 computers and sufficient printers are available.
- Campus wide LAN and WiFi enabled access to various online resources.
- Good system of maintenance and housekeeping arrangements.
- Institution promotes the use of renewable energy sources.

Student Support and Progression

- Remedial coaching provided for slow learners, students of Tamil medium and vocational stream.
- Bridge Courses are conducted in Mathematics, Physics, Chemistry and English.
- Mentoring system is in place.
- Scholarships provided to needy students.
- Transparent mechanism for timely redressal of student grievances
- Effective Mechanism available for preventing sexual harassment and ragging.
- Active placement Cell.
- Students actively participate in co-curricular and extracurricular activities.
- Students performing well in zonal level sports events.
- Alumni meet conducted annually to get their views and suggestions.

Governance, Leadership and Management

- Well-defined organizational structure.
- Clearly visualized perspective plan for the future development.
- Many faculty welfare schemes are in place.
- Yearly auditing of academic activities by internal and external auditors.
- Excellent contribution by IQAC in all the Quality initiatives of the Institution.

Institutional Values and Best Practices

- 45 gender equity promotion programmes organized.
- Institution is ISO 14001 certified.
- Institution organizes several awareness camps on environmental issues.
- Institution has a Green Club managed by students.
- Rain Water Harvesting for all the buildings are in place.
- 20% of lighting power has been met by LED bulbs.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	MAHENDRA COLLEGE OF ENGINEERING
Address	Mahendra College of Engineering, Attur Main road, Minnampalli, Salem 636106
City	Salem
State	Tamil Nadu
Pin	636106
Website	www.mahendracollege.com

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Malmurugan N	0427-2482884	9442294359	0427-2482886	principal@mahendracollege.com
IQAC Coordinator	Balamurugan S	0427-6542333	9994921548	04288-238666	hodmech@mahendracollege.com

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular Day

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of establishment of the college	21-06-2005

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

State	University name	Document
Tamil Nadu	Anna University	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	19-02-2015	View Document
12B of UGC	25-10-2016	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	30-04-2018	12	

Details of autonomy

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

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

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Mahendra College of Engineering, Attur Main road, Minnampalli, Salem 636106	Rural	18	26590

2.2 ACADEMIC INFORMATION

MAAAC

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Computer Science And Engineering	48	HSC	English	90	84
UG	BE,Electrical And Electronics Engineering	48	HSC	English	60	59
UG	BE,Electronics And Communication Engineering	48	HSC	English	120	102
UG	BTech,Information Technology	48	HSC	English	90	0
UG	BE,Biomedical Engineering	48	HSC	English	60	60
UG	BE,Mechanical Engineering	48	HSC	English	180	86
UG	BE,Civil Engineering	48	HSC	English	120	30
UG	BE,Mechatronics Engineering	48	HSC	English	60	33
PG	ME,Computer Science And Engineering	24	B.E	English	18	5
PG	ME,Electrical And Electronics Engineering	24	B.E	English	18	17
PG	ME,Electronics And Com	24	B.E	English	18	12

	munication Engineering					
PG	Mtech,Information Technology	24	B.Tech	English	24	4
PG	ME,Mechanical Engineering	24	B.E	English	24	14
PG	MBA,Masters In Business Administration	24	ANY DEGREE	English	60	0
PG	MCA,Masters In Computer Applications	36	ANY DEGREE WITH MATHS	English	60	0
Doctoral (Ph.D)	PhD or DPhil,Computer Science And Engineering	36	M.E	English	12	4
Doctoral (Ph.D)	PhD or DPhil,Electrical And Electronics Engineering	36	M.E	English	8	3
Doctoral (Ph.D)	PhD or DPhil,Electronics And Communication Engineering	36	M.E	English	12	12
Doctoral (Ph.D)	PhD or DPhil,Information Technology	36	M.TECH	English	12	5
Doctoral (Ph.D)	PhD or DPhil,Mechanical Engineering	36	M.E	English	12	4

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	12				14				235			
Recruited	9	3	0	12	11	3	0	14	148	87	0	235
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				75
Recruited	36	39	0	75
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				42
Recruited	20	22	0	42
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	9	3	0	9	3	0	4	0	0	28
M.Phil.	0	0	0	0	0	0	18	20	0	38
PG	0	0	0	2	0	0	126	67	0	195

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

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

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

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	349	11	0	0	360
	Female	101	2	1	0	104
	Others	0	0	0	0	0
PG	Male	30	0	0	0	30
	Female	22	0	0	0	22
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	16	0	0	0	16
	Female	12	0	0	0	12
	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	157	139	255	106
	Female	72	51	99	42
	Others	0	0	0	0
ST	Male	14	6	20	9
	Female	3	0	8	1
	Others	0	0	0	0
OBC	Male	194	253	211	287
	Female	64	79	106	122
	Others	0	0	0	0
General	Male	8	9	4	9
	Female	4	3	2	4
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		516	540	705	580

3. Extended Profile

3.1 Program

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

Response: 512

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of programs offered year-wise for last five years

2017-18	2016-17	2015-16	2014-15	2013-14
20	17	17	15	14

3.2 Students

Number of students year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1980	2068	2048	1675	1559

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

2017-18	2016-17	2015-16	2014-15	2013-14
394	394	394	394	456

File Description	Document
Institutional data in prescribed format	View Document

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

2017-18	2016-17	2015-16	2014-15	2013-14
465	408	304	307	470

File Description	Document
Institutional Data in Prescribed Format	View Document

3.3 Teachers

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

2017-18	2016-17	2015-16	2014-15	2013-14
261	257	237	213	181

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

2017-18	2016-17	2015-16	2014-15	2013-14
261	257	237	213	181

File Description	Document
Institutional data in prescribed format	View Document

3.4 Institution

Total number of classrooms and seminar halls

Response: 62

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

2017-18	2016-17	2015-16	2014-15	2013-14
693.4	695.70	636.83	534.54	507.22

Number of computers

Response: 646

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

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

Response:

The Institution is affiliated to Anna University and the curriculum and syllabi prescribed by the University are strictly adhered. In order to have effective teaching - learning process, the Institution has identified the following steps of pedagogic and educational administrative procedures.

- Prior planning of Academic activities and preparation of institute academic calendar in alignment with the University Academic schedule.
- Formulation of objective driven teaching plan for all courses at the beginning of the semester .
- Updating the library facilities and e-journals in line with Curriculum and syllabus changes of the University for the Regulations in force.
- Organization of the Course files.

File 1 :

- Vision & Mission statements of the Institute and Department
- Programme Educational Objectives (PEOs) Statements and mapping with PO and CO
- Course Syllabus
- Course Data Sheet
- Lesson plan
- Course materials (Unit Wise)
 - Lecture notes
 - Content beyond syllabus
 - Power point presentations
- Internal Test Question papers with key (Three tests per semester)
- Assignments topics
- Tutorial Problems
- Question Bank & University Question papers
- NPTEL Video Lecture CD

File 2:

- Time table
 - Teacher Log Book/Attendance Register
 - Continuous Evaluation marks
 - Internal Test Analysis
 - Corrective & preventive actions
 - Sample answer sheets of Test papers
 - Sample Assignments sheets

- Record of Tutorial Classes & Remedial Classes
- Retest Marks & Analysis
- Details of Add-on programs
- University Result Analysis

Faculty record of class work includes the following:

- Individual faculty time table
- Syllabus content
- Topics covered beyond syllabus
- Text Book & Reference Books prescribed by University
- Course delivery plan & Record of class work includes the Topic covered,
- Number of hours present, percentage of attendance, Assignments Marks, Test Marks, Internal Marks and University Exam marks.
- Details of Assignments

- Details of student Seminars
- Counseling Particulars includes the following details:
 - Date of Counseling
 - Name of the student
 - Grievance particulars
 - Follow-up actions

- Verification of Academic Schedule, Unit Wise with date of Completion by Head of the Department concerned and Principal

- Adopting new and innovative teaching techniques, in addition to the traditional lecturing method to enable the students actively involved in the teaching learning processes and employing learner centric techniques such as web related assignments, peer learning, group discussion, case studies, projects, surveys, quiz etc.,
- Entrusting the teaching faculty with the task of mentoring group and part of 15 students on academic and personal issues, thereby strengthening the bond between teachers and students, leading to a better learning atmosphere and to improve their performance.
- Course allotment to Faculty members based on competency matrix, experience and performance in previous years.
- Head of the department and Dean - Academics do the periodical review of the portions covered by the faculty members and the students' attendance.
- Monitoring course delivery and syllabus completion through formal and informal feedbacks.
- Systematic examination process, standard question papers as per Bloom's Taxonomy, proper and prompt evaluation and dispatch of reports to parents.
- Adopting "**Outcome based approach**" for the effective delivery of the curriculum.

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

1.1.2 Number of certificate/diploma program introduced during the last five years

Response: 34

1.1.2.1 Number of certificate/diploma programs introduced year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
8	8	7	6	5

File Description	Document
Details of the certificate/Diploma programs	View Document
Any additional information	View Document

1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

Response: 7.4

1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
3	2	3	5	4

File Description	Document
Details of participation of teachers in various bodies	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: 23.82

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

Response: 182

File Description	Document
Details of the new courses introduced	View Document
Any additional information	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 programs in which CBCS/ Elective course system implemented.

Response: 20

File Description	Document
Name of the programs in which CBCS is implemented	View Document
Any additional information	View Document

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

Response: 54.68

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

2017-18	2016-17	2015-16	2014-15	2013-14
1141	1140	1160	933	753

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

- Equal opportunities are given to both the genders in terms of usage of learning resources, library facilities and infrastructural facilities
- Equal opportunities are given to both the genders to participate in various technical events such as workshops, seminars, symposia and technical group events
- Assessment in quizzes, internal exams, practical classes are impartial in relevance to gender, social status and caliber
- Students have a compulsory course on Environmental Science and Engineering in all programs. Environmental based practical learning is implemented in some programs as content beyond syllabus
- Professional Ethics and Human values was an Elective course for all programs in the previous regulation of the University. Now it has been made Core course in some of the programs. This course is offered to the students of all programs either as Core or as an Elective

The course outcomes of Environmental Science and Engineering

- To the study of nature and the facts about environment.
- To find and implement scientific, technological, economic and political solutions to environmental problems.
- To study the interrelationship between living organism and environment.
- To appreciate the importance of environment by assessing its impact on the human world; envision the surrounding environment, its functions and its values.
- To study the dynamic processes and understand the features of the earth's interior and surface.
- To study the integrated themes and biodiversity, natural resources, pollution control and waste management

The course outcomes of Professional Ethics and Human values:

- To enable the students to create an awareness on Engineering Ethics and Human Values, to instill moral and Social Values and Loyalty and to appreciate the rights of others.
- To understand the concepts of computer ethics in work environment.
- To understand the threats in computing environment.
- To understand the intricacies of accessibility issues.
- To ensure safe exits when designing the software projects.

Business Ethics and Social classes help the students to be socially aware and ready to deal with the outside world. There are various activities performed by the environmental studies course, such as tree planting, awareness about the importance of green, leading to understand the eco system and sustainability. The students use the Language lab, which helps them improve their English and make them competent. As a

part of foreign language learning, Japanese language classes are conducted to selected interested students for their better prospects. Basic Computer Skills classes and specialized Computer courses relevant to various programs are conducted to enrich the curriculum and to improve the technical skills set of the students.

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

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

Response: 40

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

Response: 40

File Description	Document
Details of the value-added courses imparting transferable and life skills	View Document
Brochure or any other document relating to value added courses.	View Document
Any additional information	View Document

1.3.3 Percentage of students undertaking field projects / internships

Response: 53.18

1.3.3.1 Number of students undertaking field projects or internships

Response: 1053

File Description	Document
List of students enrolled	View Document
Institutional data in prescribed format	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 and 5) Parents for design and review of syllabus-Semester wise/ year-wise**A. Any 4 of the above****B. Any 3 of the above****C. Any 2 of the above****D. Any 1 of the above****Response:** A. Any 4 of the 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:**A. Feedback collected, analysed and action taken and feedback available on website****B. Feedback collected, analysed and action has been taken****C. Feedback collected and analysed****D. Feedback collected****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: 0.61

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

2017-18	2016-17	2015-16	2014-15	2013-14
14	12	12	10	9

File Description	Document
List of students (other states and countries)	View Document
Institutional data in prescribed format	View Document

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 56.96

2.1.2.1 Number of students admitted year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
516	451	705	568	540

2.1.2.2 Number of sanctioned seats year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
1002	1002	1002	1002	882

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	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:** 100

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

2017-18	2016-17	2015-16	2014-15	2013-14
394	394	394	394	456

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

2.2 Catering to Student Diversity**2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners****Response:**

The institution identifies and responds to special educational /learning needs of both advanced and slow learners:

A well-thought out and streamlined mechanism is present for continuous monitoring and evaluation of the students. The system helps the teachers to distinguish advanced and slow learners based on the performance in internal exams, performance in class tests, Assignments and Tutorials.

Quick learners are identified through the responses to the interactions in classrooms. They are motivated by the faculty members to perform better in the University examinations and secure top grades.

Assistance given for advanced learners:

Advanced learners are continuously encouraged to strive for higher goals by providing them additional inputs for better career planning and growth.

- Encouraging the students to be active members or office bearers of various professional bodies and branch associations.
- To take up industry based projects.
- To identify emerging technical areas and organize various events relating those areas.
- To nurture the students so that they become leaders of various professional bodies
- Assigning seminar topics.
- Topics on content beyond syllabus taught to quench to their thirst for knowledge.

- Training on paper presentations imparted.
- Encouraging to prepare for competitive examinations like GATE,CAT etc.,
- Encouraging to participate in classroom seminars, group discussions, technical quizzes etc. for developing analytical, problem solving and presentation skills.
- Motivating to access latest online journals, reference materials and help them to understand the emerging trends in their field of study.
- Training to use audio visual aids like power point, charts and models for effective presentation.
- Motivating to participate in in-house research activities.
- Encouraging them to participate in national level paper contests, seminars and project exhibition competitions.
- Providing opportunities to develop their creativity by organizing inter collegiate and state level cultural, literary, technical and sports competitions.
- Encouraging them to take specialized training through certificate courses. Appointing them as student representatives at the department level committees to develop leadership skills.
- Pre-placement training (PPT) classes conducted to improve their performance in the placement interview.

Assistance given for slow learners:

The Institution encourages effective mentoring system. Records are prepared which consists the academic record of all the students. From this data, slow learners are identified. If the students are slow in their learning process, the mentor who is also the guide and philosopher, identifies the nature of their problems and motivates them in a friendly way to reach their academic goals.

To improve on their academic performance, extra classes with separate time table are organized to clarify the doubts and explaining the difficult topics.

Mentors develop a rapport with the concerned students through personal interactions

Mentors talk to their parents to make the interaction more effective and result oriented.

Mentors are instructed to provide special attention towards this group of students.

- To assist them in pursuing their goal.
- Special coaching for certain subjects after the college working hours.
- Spoken English classes to boost their confidence level.
- Periodic counseling.
- Identifying and Involving them in their field of interest and motivating them for good academic performance.

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

2.2.2 Student - Full time teacher ratio**Response:** 7.59

File Description	Document
Any additional information	View Document

2.2.3 Percentage of differently abled students (Divyangjan) on rolls**Response:** 0.05**2.2.3.1 Number of differently abled students on rolls****Response:** 01

File Description	Document
List of students(differently abled)	View Document
Institutional data in prescribed format	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:**

Following Support structures and systems are available to Faculty members to implement student centric learning:

- Audio Video recording Room
- Activity based learning (ABL)
- Project based learning (PBL)
- Webinars
- swayam

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

- NPTEL and other online courses

NPTEL course materials (both web and video) are freely accessible by everyone independent of their

geographic location. These courses can be used by professionals for updating their academic background. Open and distance education using NPTEL contents are long term prospects for IITs. The contents will hopefully help evolve criteria for focused learning and a common set of standards for professional education in India through participation by everyone concerned under this platform.

- Students seminars, Group Discussions and hands on training
- Value added courses for developing special skills
- Library, Internet facility and language lab for value addition
- Availability of learning Resources (CDs & DVDs)
- In-plant Training, Industrial visits & Internships
- Assignments for self learning
- Team Teaching by Faculty Members
- Other Facilities like smart Classrooms / E-Journals.

A separate video hall is available to screen technology related videos to the students. The videos to be screened are decided by the students in consultation with the faculty members and approved by the HoD and the Principal.

Guest lectures by experts from the industry and academia are organized by the respective departments, to provide knowledge beyond the prescribed syllabus.

Webinars from experts that facilitates the students to enhance their knowledge and skills are organized regularly . Students' participative learning is encouraged during the regular class hours. The following teaching techniques are regularly followed by the faculty members to encourage participative learning.

- Exhibition and demonstrations of working models
- Group Discussions
- Role play
- Debate
- Seminars
- Learning through mini projects.

Multimedia teaching aids like videos, online materials and PPTs are incorporated in the day-to-day teaching learning process that enhances the students' learning levels.

As a part of the curriculum, Communication Language laboratory has been established for students to improve their language proficiency. Japanese language learning classes are conducted and many students are eagerly attending the classes. In addition, Soft skills training slots are also conducted by an external Expert Group, which includes Problem solving techniques. The students are also trained by the experts, in improving the presentation and communication skills.

Students are encouraged to organize and to participate in Inter-collegiate events such as symposium , project contests to bring out the potential in them.

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: 100

2.3.2.1 Number of teachers using ICT

Response: 261

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: 12.86

2.3.3.1 Number of mentors

Response: 154

File Description	Document
Any additional information	View Document

2.3.4 Innovation and creativity in teaching-learning

Response:

Well-qualified and motivated teaching faculty are the backbone of the strong teaching-learning process in the institution. Continuous efforts are taken to upgrade the performance of teachers and to train them with the innovative teaching methods. About 70% teachers have successfully completed Wipro Mission 10X Program which is specially designed for teachers.

Many faculty members have successfully participated in various training programs.

Institution is equipped with excellent infrastructural facility to promote innovation and creativity.. Focus of the teaching-learning process is to impart knowledge through which students can demonstrate

problem-solving skills. Objectives of different learning methods is also to develop inter-personal communication, team building and presentation skills.

Active Learning methods: Traditional classroom teaching is supported by various active learning methods to make the teaching - learning process more enthusiastic. Various methods used to make classroom interaction more effective are listed below:

- • Real-life analogies
- • Role play and quizzes
- • NPTEL Video lectures.
- • Interactive sessions.
- • Group activities to imbibe team work and ethics
- • Students' presentations on selected topics
- • Use of simulation software.
- Brain-storming sessions on various concepts
- • SWOT analysis by students
- • Field visits and internships
- • Involvement of eminent industry persons and alumni
- • Mini-Project and project exhibition

Some other innovations are

- Flipped classroom
- • Use of virtual laboratories
- • Practice of online examination using the platforms like MyExamo

In addition to the regular lectures through chalk-and- talk, innovative teaching approaches such as learning by doing, brain storming sessions, group discussions, seminar by students, role play, etc., are being practiced in various departments. Further ICT are used to teach lessons They help the faculty to deliver interactive lectures and demonstrations of animations/ PPT / lecture contents. Faculty members and students are encouraged to register with NPTEL online courses and to receive certificates in the particular courses. Seminars, Guest lectures and workshops are being conducted regularly. Industrial visits are part and partial of the academic activity.

Laboratories with Internet Connection allow the students to widen their knowledge and skills. Some of the experiments during practical sessions are conducted using simulation tools.

Charts and models are used by the faculty to explain the complex topics and advanced technologies, in classroom and practical sessions.

Innovative techniques are used for assessment and evaluation. Quizzes, seminars, creative assignments are designed to stimulate the critical thinking of the students.

Institution is promoting the use of innovative teaching-learning practices for the effective delivery of the curriculum.

File Description	Document
Any additional information	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years	
Response: 100	
File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

2.4.2 Average percentage of full time teachers with Ph.D. during the last five years				
Response: 9.47				
2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years				
2017-18	2016-17	2015-16	2014-15	2013-14
28	24	20	19	18
File Description	Document			
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document			
Any additional information	View Document			

2.4.3 Teaching experience per full time teacher in number of years	
Response: 9.57	
2.4.3.1 Total experience of full-time teachers	
Response: 2498	

File Description	Document
Any additional information	View Document

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: 22.19

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

2017-18	2016-17	2015-16	2014-15	2013-14
21	15	8	4	3

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

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

Response: 0.52

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

2017-18	2016-17	2015-16	2014-15	2013-14
1	2	1	1	1

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

2.5 Evaluation Process and Reforms

2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

Response:

For all theory and practical courses (including project work) assessment is continuous. This continuous assessment is done as per the procedure given below:

THEORY COURSES

Three tests are conducted during the semester at equal intervals. The total marks obtained in all tests put together, are proportionately reduced for 20 marks and rounded to the nearest integer.

LABORATORY COURSES

Every practical exercise / experiment is evaluated based on conduct of experiment / exercise and records maintained. There will be at least one test. The criteria for arriving at the Internal Assessment marks is as follows:

75 marks will be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test.

The total mark will be reduced to 20.

PROJECT WORK

Project work may be allotted to a single student or to a group of students not exceeding 4 per group. Principal constitutes a review committee for project work for each branch of study. There will be three reviews during the semester by the review committee. The student will make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be reduced for 20 marks and rounded to the nearest integer. (as per the scheme given below).

The project report carries a maximum 30 marks. The project report will be submitted as per the approved guidelines given by the University. Same mark will be awarded to every student within the project group for the project report. The viva-voce examination will carry 50 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Tests Conducted by the Institution:

Two term tests and one model Examination per theory course conducted for all theory courses.

One model examination per practical subject conducted for all practical courses.

The department will carry out internal assessment on all courses based on internal test performance of the students. Continuous evaluation procedure is followed for practical subjects.

Effective implementations of evaluation reforms of the University are strictly followed and those initiated by its own by the institution are ensured strict compliance of process and procedure suggested by the University.

The Institution has taken various measures for the effective implementation of the evaluation reforms introduced by the University. The Institution has examination coordinators from each department for smooth conduct of the examinations. The examination committee meets periodically to discuss all the examination related matters. At Institution level, effective implementation of tutorial and mid-semester tests takes place and results are informed to the students within seven days. The students can view their evaluated answer scripts and discuss the same with concerned faculty. Third test is based on the

University syllabus. For all the internal tests, Question paper includes questions from different levels of revised Bloom's Taxonomy. Retests are also conducted to the students, for valid reasons for absence in regular tests.

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

2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

Response:

THEORY COURSES

The internal assessment marks are based on the two term tests and one model examination. Internal assessment marks are periodically communicated to the students as well as parents. Further there is a system to upload attendance and Internal test marks in the University web portal at regular intervals. Students can view those details by logging in to the web portal by providing their register number and date of birth. Internal assessment tests are conducted as per the academic schedule prepared by the University

The answer scripts of examinations are issued to the students after evaluation to provide opportunity to find any discrepancies and bring it to the notice of faculty concerned. Necessary corrections are carried out by the faculty, if the claim made by the student is genuine. Evaluated answer scripts are verified and signed by the students.

The students are well informed about the evaluation procedures including revaluation and answer scripts review system of University, examination pattern of institution and the University, well in advance through the tutor ward meetings and class committee meetings.

LABORATORY COURSES

All the experiments are demonstrated clearly to all the students in batches. A batch consists of students not exceeding 4. The students are instructed to carryout the experiments under the supervision of Lab Technicians. The marks secured by a student for a particular experiment is based on the level of understanding and accuracy of the results. If the student has committed an error in the testing resulting in wrong results, the faculty member explains the right way of doing the experiment and the range of results expected. In this way, the students are enlightened the correct way of doing the experiments. At the end of the semester, a student knows the marks obtained by him in conduct of experiments in the regular laboratory sessions and in the test.

PROJECT WORK

Every student is aware of the guidelines of the evaluation of Project Work. At the end of every Project Review , the marks scored by each student is displayed in the notice board and opportunities are given to

improvr their Internal Evaluation marks.

As an affiliated institution, the college has no control over the weightage of internal assessment, but the process of deriving the marks is completely transparent and every student is given opportunities to improve his/her academic performance throughout the semester.

File Description	Document
Any additional information	View Document

2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient

Response:

On the first week of every semester, the students are informed about the system of examination processes through the class committee meetings. The university fixed a maximum of 80% marks for the end semester exams and 20% marks through the continuous internal evaluation.

The marks in the internal tests are uploaded in Anna University web portal. Parents are informed about their wards' marks through letters. Students can view their internal marks through their log-in in the University web portal.

If any grievances are brought by the students, they are immediately taken up by the faculty and necessary corrections are made within two days. The corrected answer scripts are randomly verified by HOD & Dean Academics to ensure the standard in the evaluation process. Corrected papers are given to students for verification and if any deviations are observed by the students it is resolved immediately by the faculty members.

For End Semester Examinations conducted by the University, there is a provision for revaluation. The procedure given by the University is as follows:

Photocopy / Revaluation

A candidate can apply for photocopy of his/her semester examination answer paper in a theory course, within 2 weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of Institutions.

The answer script is to be valued and justified by a faculty member, who handled the subject and recommend for revaluation with breakup of marks for each question. Based on the recommendation, the candidate can register for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the candidate concerned through the Head of the

Institutions. Revaluation is not permitted for practical courses and for project work.

A candidate can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.

Review

Candidates not satisfied with Revaluation can apply for Review of his/ her examination answer paper in a

theory course, within the prescribed date on payment of a prescribed fee through proper application to Controller of Examination through the Head of the Institution.

Candidates applying for Revaluation only are eligible to apply for Review.

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

2.5.4 The institution adheres to the academic calendar for the conduct of CIE

Response:

Academic calendar is prepared by the institution as explained below:

Each semester in an academic year commences on the date specified by the Anna University. The university publishes in advance, the academic schedule containing plans for curricular activities based on the available working/teaching days as per University norms. It clearly specifies the dates and deadlines for entering the students' attendance, test period etc.,

There is a Faculty member responsible for preparing the academic calendar for the Institution.

He/She prepares Academic calendar of the Institution in line with the University Academic Schedule.

Approval for the same is given by heads of departments and the Principal after effecting minor changes, if required.

The academic calendar is then circulated to all faculty members before the commencement of the semester.

Lesson plans are then prepared based on the academic calendar.

Academic calendar of the Institution includes schedule of curricular activities, assessment dates, technical events, class tests, submission of mark lists, placement Training slots, list of holidays and extracurricular activities. Students are then informed about time table and academic calendar.

The detailed lesson plan/teaching methodology as suited to syllabus is prepared by each faculty before the commencement of the semester. The lesson plan comprises of content, learning aid and methodology, faculty approach and course outcomes. The lesson plan generally highlights the content and total lectures for completion of the curriculum. Monitoring of implementation of lesson plan is done by Heads of the departments and corrective actions are suggested wherever required.

All the continuous Internal Evaluation tests are conducted strictly as per the Academic Calendar.

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

All departments in the institution have defined their POs, PSOs, PEOs & COs along with Vision, Mission statements, following a systematic process. These outcome statements are disseminated to the teachers and students as explained below:

Communication to teachers:

All the faculty members are maintaining the course files for the courses taught by them. The prominent content in these course files are the PEOs, POs, PSOs of the relevant Program.

Course Outcomes are framed by the faculty and they too are available in course files for that particular course.

During the Pedagogy program conducted before the commencement of new semester, a dedicated session is conducted explaining the PEOs, POs, PSOs and COs.

Course outcomes for each course are defined by the University for all the programs. In addition to these outcomes, faculty members who teach subject identify some more course outcomes and incorporate in the lesson plan

Communication to students:

The Outcome statements are displayed in each class room and laboratory of the respective program.

The importance of these outcomes are explained to the students in Tutor ward meetings, Class Committee meetings and department events.

Also, these statements are published in the department profile in the college website.

For all the Internal tests conducted by the Institution, faculty member prepares the internal test questions as per Bloom's Taxonomy and also mark the corresponding Course outcome for a particular question.

COs, PEOs and PSOs are different for different programs, but the POs are common to all the Programs. The Programme Outcomes (POs) are based on expected Graduate Attributes of NBA.

PROGRAM OUTCOMES (Common to all Programs):

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge and research methods.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues.
7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.
10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large.
11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles.
12. Life-long learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning.

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:

The following assessment methods are used for the assessment of Course Outcomes, Program Outcomes and Program Specific Outcomes.

1. Direct Assessment (80%)

Continuous Internal Evaluation Examination - Weightage 20 %

End Semester University Examination - Weightage 80%

1.1 Continuous Internal Evaluation Examination (20%):

This type of performance assessment is carried out through the examinations conducted thrice in a semester. Each and every internal examination is a tool for assessing the attainment of course outcomes.

1.2 Semester End Examination (80%): Semester End examination conducted by the university comprising entire syllabus of the course is a measure for assessing whether all the Course Outcomes are attained or not.

2. Indirect Assessment (20%)

Students' Exit Feedback - 10%

Employers' Feedback - 5 %

Alumni feedback - 5 %

The attainment levels in the range of 1 to 3 are decided by following ways:

1. 60% to 69% of the students score above 55% marks = Attainment level 1
2. 70% to 74% of the students score above 55% marks = Attainment level 2
3. Above 75% of the students score above 55% marks = Attainment level 3

From the attainment levels of course outcomes, the attainment levels of POs and PSOs are derived.

All the entries are made in a programmed Excel sheet providing the necessary input data like students' details, marks obtained for each question, level of attainment etc., the final attainment levels are obtained automatically.

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

2.6.3 Average pass percentage of Students**Response:** 70.53

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

Response: 335

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

Response: 475

File Description**Document**

Institutional data in prescribed format

[View Document](#)**2.7 Student Satisfaction Survey****2.7.1 Online student satisfaction survey regarding teaching learning process****Response:** 3.95

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years (INR in Lakhs)

Response: 95.65

3.1.1.1 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)

2017-18	2016-17	2015-16	2014-15	2013-14
40.99	36.11	18.55	0	0

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

3.1.2 Percentage of teachers recognised as research guides at present

Response: 6.51

3.1.2.1 Number of teachers recognised as research guides

Response: 17

File Description	Document
Any additional information	View Document

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

Response: 1.02

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

Response: 98

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

Response: 482

File Description	Document
Supporting document from Funding Agency	View Document
Any additional information	View Document
Funding agency website URL	View Document

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge

Response:

The Institution has created an ecosystem for innovation including incubation centre and other initiatives for creation and transfer of knowledge. It is an eco friendly campus and the management encourages staff and students to carry out Research projects that give practical solutions for social welfare and environmental issues.

The Institution has Research Centers in five Departments and undertakes consultancy project works with Industries. The Objectives of the Research Centers are to explore research culture of societal relevance among the faculty members and students, motivating the Faculty members to undertake research projects getting grants from various funding agencies and to enhance the interactions between researchers to cater to Interdisciplinary developments.

MCE is an Host Institution approved by Ministry of MSME for Business Incubation in the name of Mahendra Next Innovative Technology Trust Incubation Centre (MNITIC). The facilities at (MNITIC) includes

Seed Money: Limited seed money of Rs 6.75 Lakhs is allotted to each successful entrepreneur by MSME.

In Campus Accommodation: The Institution provides incampus accommodation to the Incubates in the campus itself.

Mentoring: A faculty member of MNITIC is a mentor and closely monitors product development of the incubate company.

Business Plan development: Management consultant help incubate companies to strengthen their business plan after conducting market surveys, if required, and financial plan.

Business Promotion: MNITIC helps finding business partners & venture capitalists and provide consultancy on business promotion with the help of the students & faculty.

Incubation Space: The Institution provides furnished air conditioned space to the Incubates. The centre has separate rooms besides Seminar/Conference Halls.

Office support: The Institution provides various official facilities to the Incubates which include High End Personal Computers with Printers on rental basis, Telephone, Photocopyinn machine , Fax machine and High Bandwidth Internet Connectivity.

Library and Documentation: The Incubates through our centre can have access to the library of Mahendra College of Engineering.

Assistance in Obtaining Finance: MNITIC facilitates to obtain funds for the incubate companies at a post incubation phase through a network of venture capitalists from all over Tamil Nadu.

Advertisement Agencies: There are several links to the advertisement agencies all over Tamil Nadu, which help the companies at MCE centre to advertise themselves.

Legal experts: A panel of highly qualified legal experts which advise the companies at MCE centre in their legal matters.

Innovative creation and Transfer of knowledge: This Institution encourages faculty members and students for knowledge sharing to do interdisciplinary projects and research work to bring out many innovations to solve social problems. The Departments have identified the emerging areas of research and encourag the faculty members to do the research work using expertise available with them. The Institution provides incentives for findings and publications in reputed journal/conferences and also for obtaining research projects from the government/ non-government agencies. MOUs have been signed with many organisations to facilitate more Institute Industry interactions and transfer of knowledge among the stakeholders.

The Institute Publishing the International Journal of Applied Science & Technology(IJASE) to cater thespecific needs of Industrial professionals, academicians and researchers.

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

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

Response: 50

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

2017-18	2016-17	2015-16	2014-15	2013-14
21	7	9	7	6

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 Research Publications and Awards

3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research	
Response: No	
File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.3.2 The institution provides incentives to teachers who receive state, national and international recognition/awards	
Response: Yes	
File Description	Document
e- copies of the letters of awards	View Document
Any additional information	View Document

3.3.3 Number of Ph.D.s awarded per teacher during the last five years	
Response: 0.47	
3.3.3.1 How many Ph.Ds awarded within last five years	
Response: 07	
3.3.3.2 Number of teachers recognized as guides during the last five years	
Response: 15	

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document

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

Response: 0.73

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

2017-18	2016-17	2015-16	2014-15	2013-14
42	43	30	29	24

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

3.3.5 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: 1.05

3.3.5.1 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

2017-18	2016-17	2015-16	2014-15	2013-14
95	81	44	12	10

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

3.4 Extension Activities

3.4.1 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:

Serving the neighbourhood community is a critical component of a socially responsible institution and MCE is committed to social responsibilities. The Institution encourages promotion of community services through setting up various forums and cells to guide the students in these directions. The National Service Scheme (NSS) Unit of MCE has become an important tool in sensitizing students and ensuring their direct participation in various social activities in and around Salem.

- More than 200 students visited Thai Anbu Illam, a Old Age Home at Don Bosco, Salem on 26th May 2018. The inmates of the home were provided lunch and Snacks and various activities were conducted to show them care, affection and happiness. The presence of our students gave them a satisfaction, happiness and they shown their gratitude by blessings and shedding the tears.
- NSS volunteers donated 75 Units of Blood on 27th April 2018, during Blood donation camp conducted in campus.
- Awareness Programme on "Importance of wearing Helmet" was organized through two wheeler rally on 20th April 2018 from Ponnampet to Old Bus stand, Salem. 30 students participated and gave awareness to the public about the road safety and usage of Helmet to save their precious life.
- Eye Donation Camp was organized on 12th Jan 2018, at MCE campus. More than hundred people came from nearby villages and utilized the free eye checkup camp and understood the necessity of donating eyes for the benefit of the needy. Based on that 39 students came voluntarily and registered their names for donating their eyes.
- "Cleanliness is next to Godliness". MCE NSS volunteers actively initiated the process of cleaning Salem Town Railway Station on 17th March 2018. The public were highly inspired by this noble act of the students.
- On 15th May 2018, Tree plantation was done in Chiiagoundapuram by our NSS volunteers. Various types of saplings were planted and Twenty Saplings were issued to the public to bring out the greenery in those areas.
- A Grand rally on Save Water, Electricity and Road Safety, on 23rd March 2017, from MCE Campus to Ayothiyapatnam was conducted. 62 NSS members participated in order to bring out the importance of saving ground water, electricity & Road Safety measures were explained to the public.
- National Yoga Day was celebrated on 6th June 2017, 150 NSS volunteers and 3 faculty members took part in this programme and students came to know about the role of Yoga and it's benefits.
- Road Safety Awareness Rally on 23rd March 2016 in Salem urban division was benefitted by the society in an effective manner. Rules and regulations of the road safety while driving, walking and crossing were explained to the public.
- Beside these Programmes, awareness Programme on Non-alcoholism, Health problems due to Malnutrition, importance of sanitation, Road safety and cleanliness, precautions on Dengue fever and AIDS, Taking care of girl child, formation of Self-Help Groups (SHGs), etc. were conducted in nearby villages to enhance the student's social responsibility and sensitising our students to social issues and their holistic development

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

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

Response: 59

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

2017-18	2016-17	2015-16	2014-15	2013-14
20	18	16	3	2

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

3.4.3 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: 77

3.4.3.1 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

2017-18	2016-17	2015-16	2014-15	2013-14
26	18	10	10	13

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

3.4.4 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: 68.68

3.4.4.1 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

2017-18	2016-17	2015-16	2014-15	2013-14
1380	1382	1412	1150	1080

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

3.5 Collaboration

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

Response: 158

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

2017-18	2016-17	2015-16	2014-15	2013-14
51	46	31	18	12

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

3.5.2 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 71

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

2017-18	2016-17	2015-16	2014-15	2013-14
35	18	11	4	3

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

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

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

Response:

The Institute has policy for creation and enhancement of infrastructure depending on the requirements of any change in the curriculum, student admission and introduction of any additional courses. The budgets for this requirement are prepared in consultation with HOD, Principal and Management and subsequently submit to the Board of Governors (BOG) for approval. Once it is approved, the same is implemented with the help of professional in the concern area. Under IQAC, College has appointed committee for infrastructure and learning resources involving senior staff and student members on the committee. Research oriented teaching is adopted by introducing few additions to the existing curriculum in order to enhance infrastructure parallel to research, curriculum and extra-curriculum.

The institution facilitates smart learning through smart classrooms. Presently, there are 51 classrooms which are equipped with WIFI facilities. There are 32 rooms with LCD facilities which include both classrooms as well as laboratories. All classrooms are fitted with white boards / Green boards / black boards. The institution constantly keeps updating this number. There is one state of the 11 seminar hall with a capacity of over 200 persons and is equipped with latest ICT facilities. Further, there are 7 computer labs having 646 computers with internet facility and latest computing equipments. There The College has a well-equipped library with adequate number of text-books, latest reference books, magazines and journals.

The Time Table committee plans ahead for all requirements regarding classrooms, laboratories, furniture and other equipments.

- Optimal deployment of infrastructure is ensured through conducting workshops/awareness programs/training programs for faculty on the use of new technology.
- Effective utilization of infrastructure is ensured through appointment of adequate and well qualified lab technicians/system administrator.
- The optimal utilization is ensured through encouraging innovative teaching – learning practices.
- The available physical infrastructure is optimally utilized beyond regular college hours, to conduct certificate courses, co-curricular activities/extra - curricular activities, parent teacher meetings, Campus Recruitment Training classes, campus recruitments, meetings, seminars, conferences etc.,.
- Open access system, use of AUTOLIB software, availability of good number of reference books and journals are the salient features of central library. College management ensures availability of adequate physical infrastructure considering AICTE norms. Whenever additional course is started or curriculum needs arise it is ensured that required physical infrastructure is available on time.

The college has put in place a system to effectively plan the teaching learning and evaluation processes. The focus of all the activities is the 'learner'. Various strategies and mechanisms for student centric learning are adopted by the teachers to cater to the diverse needs of students in the classroom like preparation of preparation of teaching plan, maintaining teachers record of class work, continuous assessment etc.

Ladies restroom and boy's restroom are provided in each floor. The campus also houses infrastructure like, boys and girls hostel, playground and health centre. The building has full-back up power supply in form of UPS and Generator. Every floor has a notice board in order to cater the need of passing information about examinations, interoffice notices.

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:

FACILITIES FOR SPORTS

The institution motivates the students to participate in various sports activities. The students have brought laurels to the college in various categories of sports and games. In order to maintain healthy atmosphere and to keep the students fit, the Institution has made arrangements for providing various sports facilities for boys and girls.

The department of physical education has been established to promote the sports talent of the students within and outside the campus. A team of qualified sports instructors and facilities work to nurture the talents of the students and faculty. The Institution encourages students to participate in inter-Institution, university-level, and state-level competitions and also organizes intra-Institution sports competition every year. The playground has many sports fields like basket ball, volleyball, Football, Handball, Kabaddi, KhoKho, Cricket, Netball and Athletic track.

Apart from outdoor games, Institution has made available indoor games such as Table tennis, carrom and chess. Institution has a well-equipped gymnasium with facilities such as machine exercises, free weight exercises and aerobics. Special coaching is offered to train the students participating in various zonal and Inter-Institution level tournaments.

A. PlayGround

- 200 m Athletic track and field of lanes
- Football ground
- Hockey ground
- Cricket ground

B. Courts

- Basket ball court
- Volley ball court
- Hand ball court
- Ball Badminton court
- Shuttle Badminton court

C. Yoga and Meditation Centre

The Institution organizes demonstrations by experts in Yoga & Meditation for the faculty and students periodically.

D. Gymnasium

Annual sports meet is conducted separately for faculty members and students. The Institution provides various other student welfare measures such as Health Center with medical facilities. It has 2 beds, a stretcher, basic medicines and first aid box, weighing balance. Considering the need of students the Institution has cafeteria with separate sections for girls, boys and staff. It serves fresh and hygienic food items with reasonable rates.

CULTURAL ACTIVITIES

To explore and nourish the hidden talents among the students, every year institution organizes various cultural events. To improve stage confidence and leadership abilities, students are trained in compering and anchoring of various events. The Institution has gained a special place in conducting the cultural activities. The students organize & participate in many cultural activities like solo and group dance, solo and group singing, skits, Rangoli, MIME, Debate, Street Play, Treasure Hunt, Fireless cooking, Fashion show, Face Painting, Drawing etc., during the cultural festival "Mahendra Utsav". The Institution is also organizing Techno Fest every year, where the students participate with zeal in many cultural activities. Institution has excellent sound and music system, drum set, light system and various allied equipments.

The Institution is also taken initiative to crate many students clubs to involve the students in club activities.

Institution has many cultural clubs such as Photography Club, Film Club, Dance club, Heritage club etc. Students organize various activities under these clubs. A display of the exhibits, include photographs, paper quilling art, canvas painting, pencil sketching, sculpture, rangoli, abstract paintings etc.

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: 67.74

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 42

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: 11.16

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

2017-18	2016-17	2015-16	2014-15	2013-14
80.87	81.36	73.28	57.59	51.45

File Description	Document
Details of budget allocation, excluding salary during the last five years	View Document
Audited utilization statements	View Document

4.2 Library as a Learning Resource

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

Response:

OPAC SOFTWARE ACCESS INFORMATION

The Institutional Library is equipped with books, journals and fully automated with bar-coded environment. Digital Library with efficient search tools such as OPAC, DELNET is available. OPAC is the Library management software (LMS) that has been developed to handle basic housekeeping functions of a library. An LMS usually comprises a relational database, software to interact with that database, and two graphical user interfaces, i.e., one for administrator/staff and other for patrons. By this software, student's can able to view the collection of books, Journals, AV Resources, Question Banks etc.,

This software packages provide sophisticated search facility to its users along with maximum user services. This OPAC software packages are distributed applications, i.e., programs that run on more than one computer and communicate through a network or server. So many students can make use of this OPAC software for their needs. The OPAC of the LMS enables users to search the library's collection and take advantage of online services. Most LMS packages have the facility of patron login, book suggestion, book reserve or hold, and other similar services in their OPAC functionality. This software is automatically calculating the fine amount for the students who did not renew the book within the stipulated time period. Barcode Identity card is provided to the user for library related transactions

BOOK SEARCH MODULE:

To search book in OPAC software, students make a click on Catalogue menu and enter into the search page. In this page, students can do search based on the title, author, publisher name, subject name, keyword, Access No of the book, ISBN etc. After mention their options, they can click search button to get the book details which is displayed as like the next screen shot.

JOURNALS SEARCH MODULE:

This module shows about journals search. To get journal information, students click the journal menu and enter into the journal page in which students can make search over either journals or magazines. To click on journal option, this software list out all the journal information in chronological order. Likewise, students can also make a search for magazines.

STUDENTS LOGIN:

OPAC software provides the facility for student's login in which students can enter into their login and knows about the book status information such as book issued and book returned information, fine calculation etc., which is shown in the below screen.

BOOK ISSUED INFORMATION

When students click the issued option, corresponding link gives information about book issued details.

STUDENT'S BOOKS RETURNED INFORMATION

This module gives information about books returned back to the library by the students

Value added services in Library:

To meet the contemporary needs of the users, the following value added services are offered:

- Circulation Services
- Digital Library Services
- Internet/Intranet Services
- Reference Services
- Reprography Services
- Online e-journals
- Open Source Resources

- Question bank
- Book Bank
- Discussion Rooms
- Inter Library Loan (ILL) Services through DELNET
- Current Awareness Services
- Digital Depository
- News Paper Clipping Services
- Information Display Services
- User Awareness Services

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 resources for library enrichment

Response:

RARE BOOKS AND SPECIAL COLLECTIONS

Library covers variety of subjects encompassing the humanities, natural history, and politics, the history of the printed book, science, art and literature. Significant holdings include works of famous rulers, fine press books and other great achievements. Literary special collections include both book and manuscript holdings that document the lives and work of significant literary figures. The Library has collection of rare books and special collections which are related to various topics such as Cultural Heritage, Traveling and Adventures, Motivational Books, Cooking.

TRAVELERS AND ADVENTURES

Students expand their horizon through vicarious experiences. They will come to know about new places, gain new experiences and meet new people. They learn about the past as well as the present and learn about a variety of cultures including their own. They discover the common goals and similar emotions found in people of all times and places.

CULTURAL HERITAGE

The importance of preserving cultural heritage is global. All cultures and groups create works that tell the story of their past and present in ways which can both inspire and inform future generations. On reading such kinds of books students can deal their life with the various aspects of love, duty to superiors, treachery, and devotion to parents, selflessness and what not. These kinds of books stand as symbols of love, charity, patriotism, conjugal love, and obedience to parents, self-sacrifice and the like. These books

teach us how a man can ruin their self for their own follies and unholy ambitions.

COOKING BOOK COLLECTION:

There are many opportunities out there today for those who want to gain necessary skills. One of these skills is cooking or baking.

Our cooking books collection helps the people in many ways namely:

- Attaining social status
- Cooking can be a fun activity too
- The ability to improve your health and life style
- Cooking and baking saves money
- The ability to give gifts

Our library cooking book collection is mainly helpful for the canteen chef where they are utilizing and providing good, delicious and variety of foods to the students in the campus.

MOTIVATIONAL BOOKS

We have a collection of motivational books. On reading a kind of motivational book and successful stories, the students can have the ability to have spur action. More often than not, a motivational book can become the fuel needed to turn ideas into projects and words into actions. Reading the stories of authors who have scaled through life's hurdles to attain success can be the necessary juice one needs to take the bold step of working out their ideas. It builds their belief Reading a motivational book transmits the passion and authority of the writer to the reader and awakens emotions of strong self-belief and personal resolve to succeed. It generates positive thoughts. The power of positive thinking is a good read to enhance positive thinking.

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**

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A. Any 4 of the above

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

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

Response: 31.22

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

2017-18	2016-17	2015-16	2014-15	2013-14
35.46	33.67	32.38	29.73	24.84

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

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

Response: Yes

File Description	Document
Any additional information	View Document

4.2.6 Percentage per day usage of library by teachers and students

Response: 16.69

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

Response: 374

File Description	Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

Yes, As per AICTE norms, the Institution is regularly upgrades or deploys IT infrastructure and associated facilities regularly.

IT infrastructure requirements are to be met periodically as per regulations given by Anna University. They may be in terms of

- Upgradation in RAM and Graphics Card and other hardware items
- Software Licenses renewal.

In all the above mentioned deployment of upgrading the IT infrastructure, department will make a pre-survey for estimating the actual requirement by taking the actual capacity of the system to carry out the experiments to meet out the requirements of the conduct of the laboratory experiments.

The Institution provides full-fledged computing facilities with necessary software and Wi-Fi facilities in the campus. Totally 646 computers are available across various laboratories and departments for the benefit of students and faculty members as per the requirement of AICTE for the current strength of total students in the campus for both UG , PG and Doctoral students. This will be upgraded year by year for the existing sanctioned intake..

One of the laboratories is equipped with computers with latest configuration and software for doing research and consultancy project work. PG and UG Students use this laboratory for carrying out their project work beyond the college working hours. As it can be used for listening NPTEL Video Lectures and doing assignments for NPTEL online coursework etc., after the college hours, upgradation is done whenever it is necessary.

Data Centre is well equipped with following high end equipments

- DHCP Server
- DNS Server
- Firewall Server
- Storage Server
- Ubuntu server

- Communication server
- Cisco 2800 series router
- Network Video Recorder
- Wireless Authentication Server
- Web portal Server

These high end equipments are also checked for updates periodically.

LAN & WI-FI FACILITY

The whole Institution is networked with fiber optic cables, 24 hour Internet connectivity at the speed of 64 Mbps and about 12 Wi-Fi points spread over the entire campus of All Academic Blocks, Auditorium, Library, Seminar Halls and Hostels(Girls and Boys) etc., with wired and wireless components. This is regularly checked for upgradation in terms of connectivity, software renewals and revisions in the application software.

- The Institution would intensify the use of Free Open Source Software (FOSS), Massive Open Online Courses (MOOC) provided by IIT Bombay under MHRD, Government of India by the faculty and students. Suitable and necessary IT infrastructures are augmented time to time for the conduct the programs in the campus.
- As the Institution encourages faculty to utilize ICT facilities for an effective teaching-learning process, the teachers are given with updated version of the tools time to time based on their teaching methodologies, subject content and delivery mechanism

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

4.3.2 Student - Computer ratio

Response: 3.07

File Description	Document
Any additional information	View Document

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

>=50 MBPS

35-50 MBPS

20-35 MBPS

5-20 MBPS

Response: >=50 MBPS

File Description	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: 14.33

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

2017-18	2016-17	2015-16	2014-15	2013-14
107.40	105.31	94.18	70.90	65.74

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts.	View Document

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

Response:

The Institution has appointed several personnel for maintaining the infrastructure by way of building maintenance, transport, furniture and generator operator in case if power shut downs. Separate Complaint registers were maintained for various services like electrical, plumbing, housekeeping, transport, canteen etc. The people, who work here on maintenance of the college, will report regularly about breakage of instruments and devices to higher authority.

Computing Facilities-Maintenance & Utilization:

System Admin and Technical Team members are responsible for maintenance of computers and network facility of the institution. In addition to that, each department has a non-teaching staff for respective laboratories to maintain systems available in the department periodically. Institution follows the online Maintenance and Services procedure for Systems. Faculty members and Students can directly send the systems complaint to the support@mahendra.info mail. Due to failure of SMPS, UPS, booting process of system, Printer toner-refilling process, Complaints are registered through email (support@mahendra.info) and ticket is generated for the corresponding complaints. If complaints are minor then this problem is rectified by the Technical Team immediately. Otherwise, this problem is overcome within a week by company services.

Maintenance of Electrical and Electronics Equipments:

- Regular check up of equipment is carried out at the end of semester.
- Breakdown register is maintained in the laboratories.
- As per the requirement minor repairs are carried out by lab assistant of faculty member.
- Major repairs are outsourced by based on institutional procedure.

- The measuring Instruments are calibrated regularly by standards companies.
- Stock verification is done at the end of every year by staff members from other department and the report is submitted to the Principal.

Library:

Institution has constituted Library Advisory Committee for effective accessibility and availability of learning resources to students and faculty. Library maintenance is computerized and automated with regular/constant up-keeping. The committee follows up with the librarian and regularly monitors the library to ensure and maintain all text books, reference books, articles, competitive examination books, magazines, journals, e-magazines, e-books and e-journals.

Sports:

Physical Education Director will have the responsible for maintenance of sports goods, play fields and other items related to the Physical Education. They are maintaining sports goods information in stock ledger. They are properly maintaining the items for indoor games, outdoor games, boy's hostel gym equipments and Girl's hostel gym equipments. Stock verification is done periodically at the end of every year which gives information about working status of items and defective items.

Transportation:

Transport in-charge is responsible for allotting the routes considering the number of students and faculty travelling from various locations to ensure safe and comfortable travel. The transport in-charge also maintains college vehicles and obtains necessary clearance certificates, insurance, and permits from the RTA. Transport in-charge allocates faculty in-charge for each bus and they are responsible for taking students attendance regularly in the college bus.

Classroom:

Mahendra College of Engineering has a supervisor who regularly maintains the boards, benches, fans and lights. Class Advisor act as a supervisor to check the class room amenities.

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: 62.26

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

2017-18	2016-17	2015-16	2014-15	2013-14
1450	1426	1369	1048	619

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

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: 20.54

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

2017-18	2016-17	2015-16	2014-15	2013-14
637	550	440	279	90

File Description	Document
Any additional information	View Document
Any additional information	View Document

5.1.3 Number of capability enhancement and development schemes –

1. 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

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

Response: A. 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 student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

Response: 58.81

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

2017-18	2016-17	2015-16	2014-15	2013-14
1354	1294	1049	852	951

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:** 55.15

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

2017-18	2016-17	2015-16	2014-15	2013-14
1297	1209	972	866	820

File Description**Document**

Details of the students benefited by 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](#)**5.2 Student Progression****5.2.1 Average percentage of placement of outgoing students during the last five years****Response:** 61.64

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

2017-18	2016-17	2015-16	2014-15	2013-14
398	257	164	167	241

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

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

Response: 24.09

5.2.2.1 Number of outgoing students progressing to higher education

Response: 112

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

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

Response: 63.35

5.2.3.1 Number of students qualifying 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

2017-18	2016-17	2015-16	2014-15	2013-14
69	41	37	34	32

5.2.3.2 Number of students who have appeared for the exams year-wise during the last five years

2017-18	2016-17	2015-16	2014-15	2013-14
82	72	64	56	56

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

5.3 Student Participation and Activities

<p>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.</p> <p>Response: 0</p>														
<p>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</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>					2017-18	2016-17	2015-16	2014-15	2013-14	0	0	0	0	0
2017-18	2016-17	2015-16	2014-15	2013-14										
0	0	0	0	0										
File Description	Document													
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	View Document													

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

Response:

The Institution provides ample avenues for developing technical skills, updating knowledge, personality development and service to the society through various associations, club activities and societies. There will a faculty Coordinator to guide the students in the smooth and effective functioning of the Associations.

Department Level:

Students are integral part of the various academic and administrative bodies. Following Associations at department levels have students' representation:

- Mechanical and Mechatronics Engineering Students Association
- Electrical Engineering Students Association

- Electronics and Communication Engineering Students Association
- Civil Engineering Students Association
- Computer Science and Information Technology Students Association

Biomedical Engineering Students Association

The Composition of the Office Bearers of the above associations is as follows:

Chairman - A Student from Final Year (Boy or Girl)

Secretary - A Student from pre Final year (Boy or Girl)

Treasurer - A Student from second year (Boy or Girl)

Member - all the students of the department.

Faculty Coordinators: Class advisors of the final year.

Above committee will plan and execute various technical events organised by the department. There will be sub-committees within this committee. During the department events, these sub- committees will have specific tasks assigned to them like arranging and inviting the Chief guest, Registration, Compering, decoration, Certificates printing and distribution, publicity etc., All these sub- committees will have students from all the years. Hence, there is coordination among the students and their skills in organising a function are improved.

Department symposia are completely planned, organized and conducted by the students under the guidance of the faculty.

Students play vital role in Institutional activities such as organizing Cultural festivals, Motivational lectures, Annual day, Sports day, Graduation Day, Independence day, Republic day etc. All the students voluntarily involve in various works in organising above functions. The student representatives also participate in the preparation of college calendar every year to plan college activities Department wise.

The students involve themselves in various club activities. Each club has a structured way of functioning. Chairman of the club will be from Final year, Secretary from the third year and representative from second year and many other students as members. Students can become a member of any club of his / her choice. No student is compelled to join any club.

Many students take leadership roles and organize the events and get very good exposure. The student representatives also actively participate in Sports committee, cultural committee, magazine committee, calendar committee etc.

Final year students show good interest in arranging the Placement & Training sessions. Even after some of the students are placed, they help their friends to get placement through arranging mock interviews, personility development etc., This is a very healthy sign of involvement of students .

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

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

Response: 49

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

2017-18	2016-17	2015-16	2014-15	2013-14
63	54	48	41	39

File Description	Document
Report of the event	View Document
Number of sports and cultural activities / competitions organised per year	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

Response:

The success of the Institution lies in having its students spread across the world. It is also important that the Institution keeps student, faculty and alumni family in an active network, so that the knowledge is shared all the time among these three stakeholders.

The strength of the institution gets multiplied through this global network with the support provided by the alumni.

The alumni form the major strength and they are the brand ambassadors of the institution. Strongly believing this concept, the Alumni Association was formed in the year 2011 under the banner "Mahendra College of Engineering Alumni Association" with the Reg. No:133/2011.

The alumni meet is normally conducted once in a year. But if large number of alumni from a particular region are interested, alumni meets are conducted in that region. In these meetings, alumni from different branches of the undergraduate and postgraduate programs share their experience and give suggestions for

the betterment of their junior students. The alumni meet is sponsored by the management in a generous manner. The alumni are honored with momentos. Such meetings are mutually beneficial for the Institution and the alumni. They provide an opportunity for the alumni to meet their friends and act as an information provider for the faculty by sharing their experience, knowledge and insights about the Industry.

The alumni visit the institution to deliver Guest lectures and seminars for the students in their areas of expertise and motivate the young minds. Successful entrepreneurs from the alumni are invited to talk on their success stories at various occasions in the Institution.

The alumni also help the final year students of the various streams of engineering, business administration and computer applications to get their placements and summer internship in their companies or to assist them get through their reference. They also assist the students for placement in public and private sector organizations. Regular alumni association meetings pave the way for the successful placements of the students.

The suggestions given by alumni play an important role while designing the policies at different levels.

Alumni Contribution:

Financial help for the needy students

- Recruitment of students
- Sponsorship of Projects for final year students
- Providing internship opportunities to students
- Guidance to cultural group
- Technical guidance and expertise to students participating in various competitions.
- Training programs and guest lectures for the students
- Students of the college are benefitted from the interaction with the Alumni

Career guidance

- Supporting industrial visits
- Donation of books, printers and equipments.

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)

? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

Response: ? 5 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:** 9

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

2017-18	2016-17	2015-16	2014-15	2013-14
3	2	1	1	2

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

Mahendra College of Engineering is committed to be a leader in Higher Education achieving excellence through world class learning environment for Science and Technology with a blend of advanced research to create ethical and competent professionals.

Mission

- To provide a conducive atmosphere to impart innovative knowledge and commendable skills through quality education by continuous improvement and customization of teaching
- To nurture research attitude and bring about tangible developments with dynamic Industry - Institute Interaction
- To create society oriented citizens with professional ethics.

The nature of governance, perspective plans and participation of the teachers in the decision making bodies.

The Philanthropic Founder Chairman, Mr.M.G.Bharathkumar has a deep vision of serving the society with the motto “Service to the nation in the cause of Education ”. His vision has been the motivation for the functioning of the Institution.

The Managing Directors are the leaders in guiding the administration of the Institution and inspiring a team of Principal, faculty and students work towards the vision of the Institution.

Based on the recommendations of the Governing Council, the commencement of new courses, expansion of infrastructure, implementation of strategy and other vital decisions are approved by the Chairman and implementation process discussed with the Principal and Heads of the departments for execution. The top management headed by the Chairman ensures that periodical meetings of the Governing Council are conducted to monitor the progress.

The Institution has a perspective plan for development. Modernization of the existing facilities, implementation of new ventures for R&D, expansion of infrastructure by means of laboratories, library resources, class rooms, meeting halls and sporting facilities are the important criteria in the annual plan of the Institution.

Every Department has an Academic Advisory Committee . This Committee meets before the start of the new semester and discusses the plan for the new semester.

The academic plan (semester wise) is prepared by the Principal after having discussions with the HODs.

The scheduling of industrial visits, conferences, workshops, seminars, FDPs, association activities, club activities, sports tournaments, recruitment and functions is done after discussions with the HODs, conveners and team leaders.

The head of the institution takes decisions in the academic matters in tune with the regulations of the affiliating University. Regular affairs include the periodic discussions of the Principal with the HODs as well as with the faculty. The Chairman conducts regular meetings with the Principal, faculty, cells, students and parents. Faculty meetings with the HOD play a pivotal role as the collective suggestions are well analysed later in the HODs meetings with the Principal. Principal's subsequent meetings with the top management and with the Governing Council ensure that all the information and suggestions reach from bottom to top and from top to bottom in a smooth fashion. The travel of smooth communication paves way for successful interaction, feedback, team work and new ventures. Organizational changes are effectively implemented not only based on needs, most importantly taking into account "Excellence".

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

6.1.2 The institution practices decentralization and participative management

Response:

The institution functions with the method of decentralized governance system. The heads of the department have been bestowed with the authority of deciding the activities and delegating the responsibilities to the staff members. The department decides on timetable, subject allocation, purchase and maintenance of equipment and consumables, organizing conferences, symposia, guest lectures and workshops and recommends necessary industrial visits, in-plant trainings, internships and MoUs.

The Institution is functioning effectively with the culture of participative management which enables the faculty and students to give their opinion and suggestions for improvement. All the academic activities are decentralized and decisions are taken based on discussion and deliberations in the class committee meetings, department meetings, faculty meetings, HODs' meetings with Principal and HODs meetings with Chairman. The Principal coordinates with the departments, administration and management. Participative management provides extensive scope for having collaboration among the departments and ensures the quality of planning and implementation of all the activities in the institution uniformly and as a team.

Every year Academic Planner is prepared at the closure of the previous academic year. Principal will convene the HODs' meeting. HODs, Dean - Academics, Training & Placement officer, Sr. Librarian and Director of Physical education will attend the meeting. The schedule of the following will be discussed and finalized in accordance with the schedule received from affiliating university

- Re-opening for the next academic year
- Working days / test days / model exam days

- Department Symposium /Association activities
- IEEE , ISTE, SAE and ISO activities
- Guest Lectures
- Video Classes
- Industrial Visits
- Internships
- Placement Training
- Internal Quality Audit Days
- External Audit
- FDPs / Workshops / Conferences
- IQAC Meetings
- College Functions –Freshers’ Day, Women’s Day, Engineers’ Day, Teachers’ Day,Sports day,Annual day,Culturals,Placement Day and Graduation Day.

The schedule approved by the Principal will be sent to Chairman’s approval. After receiving the approval, permission will be granted for the committees concerned for the preparation of Academic Calendar. Mostly 90% of the events are conducted as per schedule every year. The remaining events may be rescheduled due to unforeseen reasons with the approval of Principal and MD. The preparation of academic planner helps in identifying resource persons for different activities mentioned and enable the management to invite Chief Guests for the important functions.

Further, students club activities are designed as and when the academic planner provides the available time. Smart class rooms, Seminar Halls & Auditorium are the venues for the above mentioned activities. Separate Registers are available for booking the venues appropriate to the events.

The Management understanding the academic and other pressures faced by the faculty, is kind enough to arrange the Faculty Retreat annually in which the members from the management also participate. Total cost of the faculty retreat is borne by the management and the faculty participate in this annual event with enthusiasm. With a sense of satisfaction , they thank the management for this nice gesture.

File Description	Document
Any additional information	View Document
Link for 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:

Yes. Available.

The management continuously monitors the performance and the progress of the institution to ensure the fulfillment of the goals. To ensure consistency in academic excellence, upgradation of facilities in needed

spheres, is the foremost agenda in the council meetings. Resolutions are made as per requirements and they are implemented to enrich teaching - learning process in a broader perspective. The Institution had a humble beginning with one main block and year after year it is witnessing upward journey in creating and expanding infrastructure facilities. The Institution is now functioning with nine blocks. At MCE, the quality of student life is the main priority.

The Institution aims to ensure that the students benefit from a high quality learning environment that includes spacious classrooms, well-equipped laboratories, state-of-the-art computing facilities, rich and diverse knowledge resource centres, smart class rooms, seminar halls, auditorium, top class sporting facilities with indoor and outdoor complexes, practice and rehearsal halls for cultural activities, feel at home hostel accommodation facilities and extensive facilities for on-campus training and placement.

With the intention of providing ample avenues, enhancing the infrastructure facilities by means of construction of new blocks, class rooms, laboratories, auditorium and library facilities have been in the agenda of the continuous process. Though the needed facilities are in place as per requirements and the recommendations of the affiliating university, they are enriched with the aim of fulfilling the goals in the strategic plans which go beyond the syllabus as well to make the student fraternity not only thorough professionals, but also responsible citizens who can contribute for the development of the society and the nation. The quest for enriching the infrastructure goes beyond the mandatory facilities to execute activities like a few cited below.

- Entrepreneur Development Cell (EDC)
- Continuing Education Cell (covers area/ classrooms for training for UPSC Exams, GRE, TOEFL and other competitive exams)
- Centre for Soft Skills and Personality Development.
- Club Activities Discussion Rooms.
- Practice Rooms / Green Rooms (for Boys and Girls Separately)
- Common Rooms (for Boys and Girls Separately)
- Smart Classrooms.

Perspective Plan also includes the following parameters:

- Students' admission
- Quality of Teaching – Learning process.
- Academic Performance of the students
- Placement
- Students' Progression to Higher Studies & entrepreneurship.
- Accreditation & rankings.
- Industry Institute Interaction.

File Description	Document
Any additional information	View Document
Strategic Plan and deployment documents on the website	View Document
Link for Additional Information	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 receptive management stands as an asset to the system and stakeholders.

Governing Council, the highest body of policy making, meets periodically to discuss various issues and aspects related to the development of the college. It includes considering and approving the institution strategic plan which sets the academic aims and objectives of the institution and identifies the financial, physical and staffing strategies. Governing Council considers the recommendations of various Department Advisory Committees (DAC) and it chalks out a roadmap to achieve the goals of the institution.

The Governing Council takes the responsibility of monitoring the implementation of activities in the institutional strategic plan. The council of top management, HOI, HODs, teaching faculty, non-teaching staff, students and other stakeholders work as a team to reinforce the culture of excellence.

“Service to the Nation through the cause of Education” being the motto of the institution, excellence in every sphere is ensured not only through the mission and strategies, but also in various programmes executed.

Various Committees at the Institute level:

Institution has established various functional units for smooth functioning of different tasks.

At the beginning of each Academic year, the constitution the committees for each unit is finalised under the leadership of senior professor as officer in charge. Each unit conducts its periodical meetings and empowered to take necessary decisions for effective functioning of the respective unit.

Name of the committee	Frequency of Meetings
Governing Council	Once in a Year
Department Advisory committee (DAC)	Once in a semester
Internal Quality Assurance cell (IQAC)	Once in three months

Women Empowerment committee Once in a semester

Library committee Once in a semester

Continuous and meticulous efforts are made to maintain quality in both academic and administrative levels. Three branches CSE, ECE & EEE are preparing, while other branches are getting ready for accreditation by NBA.

Principal is the chairperson of administrative and academic activities of the institution. Heads of the department take the responsibility of heading all the administrative and academic activities of the department. The HODs possess both the academic and the financial autonomy in accordance with all academic aspects. They are entitled to take decisions as per the needs of the situations in exigencies and get them ratified by the Head of the Institution subsequently at a later stage. The Principal, HODs and Team leaders are sanctioned imprest amount, for ensuring the execution of multiple events scheduled.

Based on the experience and the expertise of the faculty members, team leaders have been identified to lead different teams which are functioning effectively. They can act proactively for moulding / grooming the members of their teams and they have been identified as second rung leaders.

Recruitment of teaching, non teaching and office administration staff is planned at the end of every academic year as per the requirements of the next academic year. Staff appraisal system is in existence in tune with the promotional policies. The grievance redressal mechanism helps to serve better by understanding the expectations.

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

A. All 5 of the above

B. Any 4 of the above

C. Any 3 of the above

D. Any 2 of the above

Response: A. 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

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

Response:

The Institution has several committees constituted for different purposes. All the members of these committees are given prior instructions about the objectives of the committee, dates of meetings, agenda to be discussed etc., well in advance..

When the meeting takes place, the decisions taken are recorded as minutes and circulated to all the members. The Chairperson of the committee periodically monitors the implementation of the decisions taken. If there are any improvements needed, he/she convenes a short, informal discussions with the members for smooth coordination and effective implementation. The main focus is to have proper and clear flow of information without any ambiguity.

Above process is followed in the Institution, which proves to be an effective method. A case study is given below explaining this process.

Effectiveness of Internal Quality Assurance Cell (IQAC): This cell is established to ensure quality in all the activities of the Institution. After finalizing the members of the cell, it was decided that the cell will meet on every first Friday of the months March, June, September and December. The agenda for the meeting is circulated by the Chairperson (Principal) of the Cell one week before the meeting. Every meeting has a focussed discussion and recommended actions to be taken. For example, the IQAC meeting happening in June, will focus on the finalization of the Academic Calendar by freezing the dates for various functions, events, placement Training, Industrial Visits etc., Another example, the IQAC meeting happening in December will review the placement of students and the ways by which the remaining students are to be placed before March.

The four meetings of IQAC in a year discuss the important activities and bringing in the quality in each one of them. The minutes of the meeting recorded in each meeting is circulated to all the Departments. Hods discuss these points in department meetings. In this way, every staff of the Institution is well informed about the various activities and finally to achieve the vision and mission of the Institution.

Examples of Governing Council Resolutions and their implementation:

S.No.	Implementation
-------	----------------

	Suggestions made by G.C.members during meeting dated 27.02.2016		
1.	To get the research centre recognition from Anna university.	CSE & ECE Departments got the rec	2016.
2.	QMS (Quality Management System) to be implemented.	Subsequent to NAAC Accreditation,	IQAC formed and all the activities at IQAC meetings.

S.No.		Implementation	
	Suggestions made by G.C.members during meeting dated 11.02.2017.		
1.	To get the research centre recognition for IT,EEE and Mechanical Departments from Anna university.	IT & Mechanical Departments got	November 2017 and EEE Department
2.	To become a nodal center for NPTEL.	Institution became the NPTEL	30.03.2017.
3.	Applying AICTE Grants through AQIS schemes.	16 Proposals applied for AQIS	Sche November 2017.

File Description	Document
Any additional information	View Document

6.3 Faculty Empowerment Strategies

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

Response:

Welfare measures for teaching staff

- Free transport facilities.
- Waiver of fees for teachers' children in the Institution.
- Medical leave and Maternity leave.
- Supporting for education of the children of the teachers in the group institutions.
- Marriage gifts with the sanction of one week leave.
- Pooled car facility to HoDs & Professors free of cost
- Gifts and mementoes during Teachers' Day celebrations.
- Sponsoring for attending conference, workshops and FDPs.
- Incentive for publication of papers / research articles.
- Reward for producing University Ranks.
- Cash awards for academic excellence / 100% pass.
- Special Study Leave (SSL) to pursue higher education.

- Faculty Retreat.
- Subsidised canteen fares for teachers.
- Group Insurance.
- Opportunity is given to the faculty members to deliver their innovative ideas, new topics of both general and subject specific areas to other faculty under Knowledge Sharing Forum.
- stress free work environment where in they are given a free hand in subject selection.

Welfare schemes for non-teaching staff

- Educational support to the children of the staff.
- Marriage gifts with the sanction of one week leave.
- Granting medical leave / maternity leave.
- Free transport facilities.
- Special Study Leave (SSL) for higher studies.
- Incentive for attending orientation programmes, workshops and conferences.
- Gifts during Teachers' Day celebrations.
- Faculty Retreat.
- Incentive for dress materials for non-teaching staff.
- Incentive for vehicle utilization or transport allowance for non-teaching staff.
- Incentive for dress materials for housekeeping staff.
- Subsidised canteen fare for non-teaching staff.
- Group Insurance.

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: 21.44

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

2017-18	2016-17	2015-16	2014-15	2013-14
55	64	50	36	42

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: 19.4

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

2017-18	2016-17	2015-16	2014-15	2013-14
28	21	19	17	12

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: 52.26

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

2017-18	2016-17	2015-16	2014-15	2013-14
170	129	138	101	73

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:

The management evaluates the performance of the faculty based on teaching, research, participation in department activities, ability to work in a team, arranging co-curricular and extracurricular activities and publications. They are awarded and appreciated during teachers' day celebrations. The appraisal system motivates the staff to excel and put in the best of their efforts. Staff retention is one among the many strengths of the institution.

Faculty members are given an opportunity to present their achievements and credentials through the self appraisal forms. This form contains various information like publications in journals, skill upgradations, SWOC analysis etc., This form is an important tool in performance appraisal system.

The following factors are deeply analysed in the appraisal system for teaching staff.

- Experience.
- Skill upgradation through participation in Conferences, Workshops, Faculty Development programs.
- Innovative teaching practices.
- Pursuing higher studies- Ph.D, PDF etc.,
- Research activities and obtaining patents.
- Result percentage produced in the University Examinations.
- Publications in the Scopus indexed / impact factor / e - journals & conference proceedings.
- Publication of chapters in books and publication of books.
- Carrying out sponsored research projects.
- Mentoring and Counseling techniques.
- Feedback from HOD and Principal.
- Feedback from students.
- Establishing rapport with peers.
- Active participation in team work.
- Undertaking new academic ventures and being team leaders.
- Rewards for outstanding achievements in their studies pursued after joining the institution.
- Attending specific conferences / workshops / training programs related to cells and clubs, for which they coordinate as team leaders.
- Awards and Rewards for being good academician – state and national level.
- Community service through the institution and outside the institution.
- Initiatives in conducting co-curricular and extracurricular activities.

The following factors are deeply analysed in the appraisal system for non-teaching staff.

- Experience.
- Skill upgradation through Orientation Programs, Refresher Course, Short Term Courses.
- Higher Studies.
- Feedback from HOD and Principal.
- Active participation in team work.
- Work Discipline.
- Outstanding Achievements in their studies.
- Participation in community services.

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:

Internal Audit is performed by officials deputed from Trust office periodically and the reports are obtained before the conduct of the external audit which is normally done after the closure of the accounts in all respects. External Audit is done by the Statutory Auditors after 30th June of the subsequent year.

During the course of Internal Audit, all required steps are taken to regularize the accounts and to obtain confirmations for the credit balances, to collect documentary evidences wherever necessary in respect of payments, compliances of T.D.S. and Statutory Formalities and Reconciliation of Unit wise balances with the Control Accounts and Bank Reconciliations. The copy of the Internal audit report covering all matters related to maintenance of accounts is preserved.

Subsequently, External Statutory Audit is conducted by the auditors and the final audit report with audit findings are submitted to the Management. The consolidation of the findings of the Institutions with Trust Central office has been completed and the annual returns have been submitted to Income tax Authorities, Registrar of Societies, Tamilnadu and to other relevant authorities concerned.

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

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

Response: 929.7

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

2017-18	2016-17	2015-16	2014-15	2013-14
212.34	210.85	190.95	165.87	149.69

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:

Mobilization:

Fees Collections

Students are admitted as per the Tamilnadu Government prescribed Higher Education norms by admitting 65% (or more) of students through Anna University Counseling (TNEA) and 35% (or less) through Consortium of Self Financing Professional, Arts and Science Colleges in Tamil Nadu. The latter category of students are admitted with the Fees higher than Government Quota students.

Term Loan and Hire Purchase Loans

Institution is getting above Loans from Banks with reduced rate of interest by maintaining the liquidity, DSCR and Debt Equity Ratios which are sound and the Loans are availed.

Government Grants and Sponsorship Receipts

Institution is getting Grants from various Government Bodies i.e. AICTE, ISTE, UGC, DST, IMCR etc. and the grants are judiciously utilized to meet the recurring and non recurring cost.

Corpus Donation of Trust and Trust Contribution

The Institution is functioning under the Mahendra Educational Trust. The Trust is allocating funds for the creation of capital assets like Buildings, Equipments, Books, Computers, Furnitures etc.,.

Optimal Utilization

Recurring Expenses

Salary to staff, academic activities and payment of bank interest are done with fees collection.

Infrastructural development facilities and Building construction works

Management allocates budget to create and upgrade the infrastructural facilities based on the cost of construction works. Loans received from banks are judiciously utilized for the same.

The institution gets grants from AICTE for purchase of modern lab equipments, purchase of latest version software and others.

The Institution purchases new vehicles (buses/vans) as per student strength, through hire purchase loans from banks and loans are repaid with reduced rates of interest from the reasonable transport charges collected from the students.

Research and project activities

Knowledge is generated and applied in new innovations and technologies which in turn shall be utilized to enhance the quality of socio-economic and environmental conditions of society. The institution is committed to provide excellence in research. The institution has executed many Research and Development projects. Donations from government and non government bodies, institutions and industries are used for R&D.

Seminars, Conferences and Faculty Development Programmes and other co-curricular activities:

The institution conducts the above said events regularly matching with the latest technology, innovations, research, changes and needs for the society. these events are conducted from the funds received from the Professional bodies & funding agencies.

Green Atmosphere

Enough care is taken to maintain cleanliness in the campus, which coexists with godliness and fund is judiciously utilized.

Bio-waste management expenses

The institution utilizes the policy of bio waste management effectively as it provides revenue.

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

6.5 Internal Quality Assurance System

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

Response:

Pre Final year and Final year project exhibition:

The IQAC is focusing very much on the quality of projects, students carry out during final year. IQAC suggests that the students can plan their projects in the pre-final year. A mini project exhibition is conducted by the departments of CSE, IT, ECE, EEE, Biomedical, Mechanical, Mechatronics and Civil in the sixth semester. For the mini project, the students can combine in a group of four and they have to deliver two presentations and marks are awarded by the project guides for the presentations. It has been made compulsory for all the students to undertake a mini project, even though it is not a part of the syllabus of the affiliating University.

The third presentation is made by the students with the physical Model or prototype in front of the judges and prizes are distributed for the winners during the mini project exhibition. Prizes include merit certificates and cash awards and participation certificate for all participants.

This is an initiative taken by the IQAC for doing a quality project in the final year. Apart from this mini project exhibition, there is a project exhibition in the eighth semester in which the students of all departments exhibit their projects.

Experts are invited from Industry and Academic institutions to judge the projects exhibited by the students. Three prizes are awarded for each department and this creates a healthy competition among the students for carrying out socially relevant and innovative projects.

Introduction of two question papers per course, incorporating revised levels of Bloom's Taxonomy:

The IQAC focuses on the continuous improvement of the evaluation system for the students.

There is a centralized examination cell to conduct the term tests and model examination (Term test for a period of 1 hour and 30 minutes for 50 marks and the model examination for a period of 3 hours for 100 marks).

The examination cell has been functioning effectively by planning the tests in advance and collecting the question papers in time. Faculty teaching the courses prepare two question papers for each course and hand over the same to the examination cell. The question papers are prepared based on the different levels of Bloom's Taxonomy. For all UG courses, question paper will be consisting of a minimum of 40% questions with higher order thinking skills and for all PG courses it will be 50 %.

After closely observing the performance of some students and finding out the reasons, IQAC introduced a re-test procedure for slow learners. The second question paper which is already submitted is used for retest and the slow learners are thus given a chance to improve their performance.

This system is being further reviewed and improved by the recommendations of the IQAC cell that not

only the slow learners, but also those who were not able to perform well in the first attempt and those who were absent for genuine reasons also given opportunities to improve their performance.

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 the topics beyond the syllabus :

The teaching learning process is continuously monitored, reviewed by the Heads of the department and improvements suggested to the Principal and discussed in the IQAC meetings.

Apart from the regular class room lectures by the faculty members for each course, students are given opportunities to attend the guest lectures by Industry experts in the smart class rooms.

The content of these type of lectures is mostly beyond the syllabus and they enlighten the students about the Industry requirements. These lectures enable the students to know in depth about the industry environment and the necessary skills they should acquire for their placement.

Regular interactions with Industry experts bridge the gap between the Institute and the Industry and help the IQAC in identifying the necessary skills to be imparted to the students.

Faculty members are trained on the pedagogical aspects before the commencement of each semester.

Guest lectures on content beyond the syllabus and pedagogy are the outcomes of IQAC which are well supported by the management.

Video Classes and NPTEL online courses

Other than smart class rooms lectures, videos are streamed for specific topics beyond the syllabus, on the emerging technology in the respective domains.

Through these video classes, students are able to gain a good understanding of the Techniques through visual media with maximum impact and encourage them to focus on their project work also.

The students show great interest in the videos played in the auditorium and the interaction by the students post video session is very good.

A regular schedule for proper utilization of the auditorium indicating the date, time, branch and year of

study is prepared at the beginning of the semester, so that all the students are benefited through video sessions.

The students and faculty members are encouraged to register for the NPTEL (National Programme on Technology Enhanced Learning) online courses initiated by IITs and IISc. If a registered candidate (Faculty or student) scores above 80% in the final examination, the management reimburse Rs.500/- and Rs. 1000/- for those who score more than 90% towards the examination fees paid by them.

This is a very good motivational gesture from the management to the faculty and students. The idea of repaying the fees is put forward by IQAC to the management.

The IQAC is instrumental in implementing new ideas for encouraging the students and faculty in delivering their best performance all the time.

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: 13.2

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

2017-18	2016-17	2015-16	2014-15	2013-14
21	25	10	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

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A. 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:

Quality enhancement initiative in academic domain:

Curricular Planning and Implementation: The institution provides the necessary support to the faculty for effective delivery of the curriculum.

Curriculum enrichment: The institution has established additional clubs through which through which the matters related to curriculum enrichment are addressed.

Feedback system: Improved and structured feedback system introduced.

Catering to student Diversity: Both advanced and slow learners were taken care through content beyond syllabus and remedial classes respectively.

ECE department has conducted many programmes for the benefit of Girl students in the areas of menstrual hygiene, breast cancer etc.,

Faculty Contribution: Better understanding of different learning styles of students and appropriate methods of teaching in place. Faculty members focusing on improving the higher order thinking skills of

students viz. application, analysis, synthesis and evaluation.

Evaluation process and reforms: The Institution has continuous evaluation system and developed mechanism for monitoring the students' progress.

Student progression: The Institution has improved the participation of students in co-curricular and Extra curricular activities.

More number of students placed in various companies.

Quality enhancement initiatives in administrative domain:

12(B) Status: The Institution obtained the 12(B) status to receive central assistance from UGC.

Research Centres: Five Departments ie., Computer Science Engineering, Information Technology, Electronics and Communication Engineering, Mechanical and Electrical & Electronics Engineering are recognized as approved Research Centres by Anna University, Chennai.

Permanent Affiliation: The departments of EEE, ECE, CSE & IT have obtained the Permanent Affiliation from the Anna University, Chennai.

Nodal Centre: National Cyber security Nodal Center is established in the Institution.

AQIS : 11 proposals submitted for the AICTE Quality Improvement Schemes.

Innovation: The Institution hosted a National level paper presentation contest Innovation of Engineering and Technology (IET'17) through Recruitment Analysis Council headed by former justice of high court Justice Vallinayagam.

NDL: The Institution has become a member of National Digital Library (NDL).

Building Space: Additional infrastructure created to provide one more seminar hall and additional laboratory.

Library: Reading area of the Library increased.

Computers: More number of computers and printers provided.

Wi-Fi: Campus wide LAN and Wi-Fi Internet capacity increased to 64 Mbps to enable access to various online resources.

File Description	Document
Any additional information	View Document

NAAC

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: 37

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

2017-18	2016-17	2015-16	2014-15	2013-14
10	8	8	5	6

File Description	Document
Report of the event	View Document
List of gender equity promotion programs organized by the institution	View Document
Any additional information	View Document

7.1.2

1. Institution shows gender sensitivity in providing facilities such as:

1. Safety and Security
2. Counselling
3. Common Room

Response:

Safety and Security

- The institution has no compromise in the security issues. Right from the inception of the college, the management has taken serious steps to have the security to the entire campus. The security personnel monitor the movements in the campus round the clock. CCTV cameras have been installed in main places like entrance gate, library, auditorium, office etc., for the safety of the students. The security guards near the entrance physically check the vehicles and belongings during entries to the campus and exit from the campus.
- One of the main objectives of the institution is to promote education that would be sensitive to the needs of the various sections of society with special emphasis on gender equality and gender sensitivity. Students of both the genders are given equal opportunities to develop into responsible citizens of the future. The institution constantly makes efforts to maintain gender balance among the faculty members. Departments headed by men and women are equally balanced. Female

teaching and non-teaching faculty members are equal in number with the other gender.

- Similarly, the number of women in the administrative and housekeeping departments equal with the male counterparts.
- Women empowerment cell deals with all the grievances faced by girl students and lady faculties. It regularly addresses the complaints filed the girl students and provide a safe environment for them. The women's club activities are planned, organized and executed by a committee comprising of 25 girl students representing all the departments with the guidance of the women faculty members. Apart from Womens' empowerment club, there are other student clubs vibrant in the institution comprising both the gender.

Counselling

- There is a separate Counselling Room for counseling the students who needs moral support and care. Dr.Padmaja is the incharge for counselling cell in our Institution. This Counselling cell periodically meets the needy students for effective counseling. Local guardians take care of the students regularly. They help the students to solve their personal and academic problems to the possible extent. Students will be monitored and counseled on academic performances, attendance, regularity, punctuality, disciplinary matters, safety and security measures etc. The students are free to meet their local guardians any time to share and discuss their problems.
- The college has a disciplinary committee with a senior professor as chairperson and few experienced teachers as members. The committee gives utmost importance for maintaining student discipline in the class room as well as in the campus. In case a student violates any disciplinary regulations of the college, the matter is referred to the committee. After proper enquiry, the committee sends its reports to Principal recommending suitable action. There is a Centralized Counseling Cell in the institution. Students will be counseled on a need basis by the centralized Counselor.

Common Room

The institution has big common rooms, with table tennis, Chess & Carrom boards for the recreation of students separately for boys and girls. It has the Newspapers and magazines reading facility also.

File Description	Document
Any additional information	View Document

7.1.3 Alternate Energy initiatives such as:

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

Response: 10.98

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

Response: 63700	
7.1.3.2 Total annual power requirement (in KWH)	
Response: 580000	
File Description	Document
Details of power requirement of the Institution met by renewable energy sources	View Document
Any additional information	View Document

7.1.4 Percentage of annual lighting power requirements met through LED bulbs	
Response: 30	
7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)	
Response: 99000	
7.1.4.2 Annual lighting power requirement (in KWH)	
Response: 330000	
File Description	Document
Details of lighting power requirements met through LED bulbs	View Document
Any additional information	View Document

<p>7.1.5 Waste Management steps including:</p> <ul style="list-style-type: none"> • Solid waste management • Liquid waste management • E-waste management <p>Response:</p> <p>Solid waste management :</p> <ul style="list-style-type: none"> • To reduce waste in the institution, students and staff are educated on proper waste management practices through lectures, advertisement on notice boards, displaying slogan boards in the campus. • The total solid waste collected in the campus is around 15 Kg/day on an average from tree leaves, paper cups, waste paper etc. The waste is segregated at source by providing separate dustbins for Bio-degradable and non bio-degradable solid wastes. • Single sided used papers are reused for writing and printing in all departments. • Use of plastics is banned inside the campus. Students are requested to bring lunch and drinking
--

water in stainless steel containers. However recyclable plastics with higher thickness are permitted. Canteen contractor is strictly instructed to avoid plastic cups.

- Solid waste is collected and given to the vendor at regular intervals.
- Metal and wooden waste is stored and given to authorized scrap agents for further processing.
- Glass bottles are reused in the laboratories.
- Sanitary napkins are disposed of using incineration process through the incinerators kept at ladies toilets.

Liquid waste management:

The waste water from the Kitchen, Dining, Wash rooms, hostels is collected in drains. It flows by gravity and safely disposed in the main drain outside the campus.

Sewage from the rest rooms are allowed to collect in the septic tanks and the clear effluent from the septic tanks is allowed in the soak pits, where is is absorbed by the surrounding soil.

E-waste management:

- Use of personal mobile phones, memory cards etc. are restricted in the campus.
- The campus has centralized facility to collect e-waste from the laboratories through housekeeping personnel. E-wastes such as computers, laptops, scanner, printer etc. if generated are collected centrally & disposed off. Old monitors and CPUs are repaired and reused.
- The college has taken steps to optimize its repository of computers through reassembling, modification and upgradation by a team of IT Administrator, faculty members and students of Computer Science Engineering and Information Technology. This has been a critical endeavour towards E-waste management ensuring that no discarded computers or printers are lying idle in the office premises.
- E-waste from laboratories is properly collected and is given to the licensed recycling Agency, reused wherever possible, donated and sold, if possible. Non-working computers, monitors, and printers are discarded and scrapped on a systematic basis. Some parts useful for other systems are kept aside for future use. Students are also inculcated on awareness and education about the handling of E-Waste.

The Institution puts efforts in keeping the campus clean. It is always tried to manage the solid and liquid waste in such a way that it is re-used.

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

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

- Rain water harvesting is the process of collecting, conveying and storing water from rainfall in an area. Institution has a method of collecting rain water near each building.
- There is huge demand for water in Institution for laboratories for use in experiments, drinking, cleaning landscaping etc. Borewells and water supplied by the Municipality are two major sources of water. The institution ensures that the wastage of water is minimized and the leaky taps and pipes are under regular check and hence no loss of water is observed, neither by any leakages nor by overflow from overhead tanks.
- On an average, the total use of water in the college and hostels is around 1,00,000 L/day, which includes 40,000 Litres/day for hostel students, 30,000 L/day for day scholars and faculty, 10,000 litres/day for gardening and 15,000 Litres/day for hostels and canteen, 5,000 litres/day for laboratories and other purposes.
- The Institution has implemented Rain Water Harvesting (RWH) within its campus. Underground masonry tanks are constructed near the outlet points of pipelines from roof terraces for every building and these tanks receive rain water from the open roof tops through PVC pipelines. These tanks store the water and the collected water is reused for landscaping and toilets flushing. Thus, it has reduced the dependence on water from other sources.
- Signboards and posters are displayed at various locations on the importance of saving water.

The college emphasizes on the significance of water conservation and explains to all the students about the importance of preserving and saving it. Students are encouraged to use water wisely and only when necessary. They also act immediately upon witnessing any wastage and take necessary action to stop it. One of the ways of preserving water in the Institution is rain water harvesting.

The Institution's strategy in rain water harvesting and sustainable water management is the combined use and storage of surface and ground water through the creation of collection tanks and deep bore wells to achieve more efficiency in water usage and alleviate degradation of water. The

practice of agroforestry in the campus further enhances the scope of ensuring that there is recharge of ground water and prevention of excess water flow during the monsoon season

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:

The institution is a Green campus, lush, serene with excellent landscaping. The students and faculty are encouraged

- To plant more trees and making the campus garbage and plastic free zone. Green Club of our college takes care of maintaining the campus clean.
- Even though the campus is located very near to the busy Chennai Highway, efforts are made to ensure sufficient Green trees are planted in the campus to absorb the harmful gases emanating from the fast moving vehicles.
- Tree plantation programs helps in encouraging eco-friendly environment, which provides pure oxygen within the campus.
- The Illumination and ventilation in classrooms are adequate considering natural light and air present.
- The noise level in the campus is well within the limit i.e. below 30 dB at daytime. The installation of solar panels, use of LED bulbs, paperless work system and composting practices are green features of the institution.
- College transportation facilities include buses which are used to commute students and faculty residing at far off places. Various routes of buses are optimized such that buses run shortest distances to pickup and drop the students and faculty. Also, buses are operated based on needs and the students' strength.
- Students and faculty residing near the college use bicycles or walk to the college.
- Buses are operated at 10 kmph speed only, within the campus to ensure safety to the pedestrians.
- The College makes the students aware of the Carbon Credits, Carbon Neutrality through the course "Environmental Science and Engineering".
- Emission test certificates are mandatory for allowing the vehicles in the campus.
- Tobacco products are strictly banned within 2 kilometers around the campus.
- The chimney in the kitchen and the exhaust from the boiler produces carbon and other carbon pollutants. Regular cleaning is ensured for carbon neutrality.

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

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)

2017-18	2016-17	2015-16	2014-15	2013-14
0	0	0	0	0

File Description	Document
Green audit report	View 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)

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

Response: A. 7 and more 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: 52

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

2017-18	2016-17	2015-16	2014-15	2013-14
16	13	10	8	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: 52

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

2017-18	2016-17	2015-16	2014-15	2013-14
16	13	10	8	5

File Description	Document
Report of the event	View Document
Any additional information	View Document

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
Any additional information	View Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	View Document

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

Response: Yes	
File Description	Document
Any additional information	View Document
Provide URL of website that displays core values	View Document

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	View Document
Any additional information	View Document

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	
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Response: 33

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

2017-18	2016-17	2015-16	2014-15	2013-14
10	8	6	6	3

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 college imparts the feeling of patriotism in students and staff members by celebrating the national festivals like Independence Day and Republic Day every year. It involves the unfurling of the National Flag, an event by NSS, and distribution of sweets among students and staff members.
- Further, it as follo ed National Service Scheme’s “Cleanliness Drive” for a week under the Swachh Bharat Abhiyan.
- The college also organizes the events to commemorate the birth and death anniversaries of famous personalities like Mahatma Gandhi, Dr Sarvepalli Radhakrishnan and others so as to familiarize the students with the contribution that these respective personalities have made in the process of nation building and paving the way for its present and future developments.
- The events include lecture by eminent speakers from diverse fields and conducting intra-college competitions like Essay writing, Slogan writing, Poster Making, Cleanliness Drive, etc.
- The college also observes other days of national importance which are birth/death anniversaries of great Indian personalities. The college makes the students aware of such personalities and their significance.
- The institution celebrates these days of national importance to recall the events or contribution of our leaders in building the nation. Thoughts of great Indian personalities sowed into the young minds through the exhibitions and programmes conducted on these days.
- Every year Teachers day is celebrated on September 5th recognizing the contributions and achievements of teachers.
- Birthday of Dr. Mokshagundam Visheshwaraih is celebrated as Engineers’ Day. Engineer’s day on 15th September, to celebrate the contribution and achievements of Engineers and inculcate a sense of pride is religiously celebrated. All the departments organize technical competitions on the occasion. Distinguished guest is invited to address the students and faculty to inspire the community to excel as engineers following the path of the great personality. Speakers bring out

invaluable knowledge in the field of emerging technologies and advancements.

- National Science Day is celebrated in the memory of Dr. C.V. Raman's invention of Raman Effect. Poster presentations and quiz competitions are conducted and achievers are honored with certificates. Scientists in the vicinity from the central and national organizations are invited as guests to motivate faculty and students by bringing the context of latest inventions and research. Death anniversaries of great persons of national importance are marked by paying homage and recalling their contribution to the nation.
- The institute also conducted a massive plantation campaign to mark the birth anniversary of Swami Vivekananda and a youth summit was organized in remembrance of Dr. APJ Abdul Kalam to foster and encourage innovation in the young minds.

File Description	Document
Any additional information	View Document

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

Response:

Transparency in financial functions:

The college maintains complete transparency in its financial, academic, administrative and auxiliary functions. The college performs yearly audit. The distribution of funds to different departments is done as per the budget allocation on different heads. The college maintains the statement of account and balance sheet by Chartered Accountant. The college receives student fee only through electronic payment mode. Payments to all creditors are also done by NEFT/RTGS. The college conducts external and internal academic audit to maintain transparency for academic transactions.

Transparency in academic and administrative functions:

Academic processes including session plan, PPTs, Timetable, Session Audit etc. are managed through an online Learning Management Solution. The appointments are made as per the roster. The college follows the centralized admission policy laid out by the University.

The Advisor of the College guides coordinates and monitors the administration regularly through the Principal in consultation with IQAC. IQAC is serving as a bridge between the top Management and Staff and co-ordinates all the academic and administrative committees constituted in the institute.

The Principal is ably assisted in the day to day administration by the teaching and the non-teaching staff in all academic and administrative matters respectively. The college utilizes the services of the duly accredited Chartered Accountants for conducting the audit of the financial operations of the institution.

In these meetings the College matters relating to finance, academics and development are discussed, future projections are formulated and progress is reviewed and evaluated.

Various Committees too help in this regard. Two representative of the Teaching faculty is on the Governing Council.

At the beginning of the semester subjects are allocated to the staff members according to their choice and area of specialization by the head of the department.

Three centralized internal assessment tests are conducted for students. The scripts are evaluated within a week of the end of the tests. Marks are uploaded on the student information system. Marks are sent to the parents after each test.

In each semester students evaluate their teachers and the report is given to each teacher for improving themselves. Faculties who get less feedback are counseled by the Principal / HOD

For the programs conducted in the college different committees are formed which comprises of faculties from all departments.

Academic Calendar is designed by student Council with the help of all HODs and Principal. Majority decisions taken by the Principal are during the HOD meets. Weekly HOD meeting are conducted. Decisions taken during the HOD meetings are forwarded to all the faculties.

The institution works for the welfare of the society by conducting programs such as blood donation camp, health, and hygiene awareness programs, awareness programs on road safety etc.

File Description	Document
Any additional information	View Document

7.2 Best Practices

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

Response:

PRACTICE- I: KNOWLEDGE SHARING FORUM

Goals:

1. To keep the faculty community updated on current trends in the field of Engineering & Research.
2. To facilitate knowledge transfer on other engineering branches of study.
3. To increase the interaction level of the faculty of multiple-disciplines under a common forum.

Objective:

To enhance the presentation, teaching, learning and listening skills of the entire faculty team.

The Context

To increase the confidence level among the staff members and to present their technical knowledge effectively in various forums at various levels.

The Practice

Staff members make technical presentations daily on the basis of pre planned schedule.

Evidence of success

1. Confidence level of the staff members has improved.
2. Has created a competitive environment among the staff to make better presentations.

Problems Encountered and Resources required.

Since it is done on daily basis time allocation to department developmental activities is less.

PRACTICE- II: STUDENT ENTREPRENEURSHIP WHILE DOING COURSE

Objective of the Practice:

1. To create Entrepreneurial culture in the Institution
2. To inculcate a culture of innovation driven entrepreneurship to enable students to carry out in-house project.
3. To promote employment opportunities. .

Context:

Many students get their engineering graduation every year. There are significant number of students who have valuable entrepreneurial ideas which do not germinate and grow to completion, for want of the necessary environment and support. Allowing students to start working on innovative ideas while they are in college, can make them contribute significantly to

the growth of a robust entrepreneurial system in the society.

Practice: Student entrepreneurship is done in 3 stages.

1.Preparation In house stage: The expert committee formed for the evaluation of ideas shall interview each entrepreneur and analyze their potentiality.

- 1.Review and establishment: Team formation is the key for the entrepreneur to commence his journey before starting his own company.
- 2.Prototype development: The working model or prototype of the technology idea to be developed and this is to be certified by experts for commercialization.

Evidence of Success:

Students are made practice of doing innovative projects during 4th year.

PRACTICE- III: STUDENT MENTORING BY SENIOR STUDENTS

Objective of the Practice:

The goal of this practice is to develop good relationship between students and Senior Students to solve their problems and to make them competent to every situation of their life, career etc.

Context:

Study habits, subject expertise, and practice methods of seniors adopts for the developing the needs of juniors. Senior and junior student can speak and understand each other in an excellent manner, through a structured mentoring program.

Practice:

Seniors can meet the meet the students once in a week. Senior mentors can call the Parents of poor attendee/performance students for corrective and preventive actions which are implemented for further improvement. Each senior mentors maintains the whole student database, which is examined by the HOD.

Evidence of Success:

Student's attendance has been found improved after counseling by the senior mentors. Academic performance results of students have been improved.

Problems Encountered and Resources:

Senior students should be trained properly.

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:

Vision

Mahendra College of Engineering is committed to be a leader in Higher Education achieving excellence through world class learning environment for Science and Technology with a blend of advanced research to create ethical and competent professionals.

Mission

- To provide a conducive atmosphere to impart innovative knowledge and commendable skills through quality education by continuous improvement and customization of teaching.
- To nurture research attitude and bring about tangible developments with dynamic Industry- Institute Interaction.
- To create society oriented citizens with professional ethics.
- The college aims to deliver quality education, grounded in sensitivity towards individual dignity, professional integrity, and a positive and nurturing environment via enhancing the commitment of faculty, administrative staff and the students to the centrality of diversity, social justice, and democratic citizenship. This has resulted in students outperforming themselves and depicting exemplary results at the university level.
- Additionally, the faculty has also been actively participating in various national and international seminars and conferences, faculty development programs along with conducting extensive research (refer faculty profile). In this direction, the college has also conducted several national level seminars and development programs. Furthermore, the administrative staff has also been motivated to participate in various training programs to increase their efficiency levels, which has been observed in their ability to perform daily tasks
- Our institution is located in a rural area. Many of our students are from villages. Many students belong to first graduate category. Keeping this in mind, our college gives more importance to

enhance the skills of the students to face the global challenges. Motivational programmes are conducted to make them aware of the society.

- Experts from all walks of life, Indian Police Service (IPS), Indian Administrative Service (IAS), Doctors, Environmentalists, Social activists, legal experts, business people, Human resource managers, sports personalities, and motivational speakers are invited and awareness programmes are conducted to enhance the skills of the students in all aspects to face the society with confidence. Moreover the students are encouraged to face the updated technological developments in the field of science and technology. Students are encouraged to participate in the programmes such as Hackathon and ICT youth Talk.

One of the most important steps taken at the institution was the establishment of the Entrepreneurship Development Centre (EDC) in the campus. The construction of this centre was a step taken by the college to prepare the students for their future journey as entrepreneurs. With a distinctive vision of providing a path for young minds to follow and develop their skills, the Entrepreneurship Development Centre (EDC) is one of its kind. Allowing them to pursue their dreams along with a sense of direction, the EDC helps those with a view to shape the global economy.

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

5. CONCLUSION

Additional Information :

Recognizing our consistent efforts in execution of various skill oriented programs apart from prescribed curriculum, Mahendra College of Engineering is identified as one of the partners by Infosys Campus Connect, National Cyber Safety and Security Standards(NCSSS), ICTACT of Tamilnadu, Wipro Mission 10x and Business Incubation/Host Institution of MSME, Government of India

Concluding Remarks :

Mahendra College of Engineering is committed to be a leader in Higher Education by providing a conducive atmosphere to impart innovative knowledge and commendable skills through quality education by continuous improvement and outcome based education for the upliftment of rural youth.

It strives to achieve excellence through world class learning environment for Science and Technology by nurturing research attitude and bring about tangible developments with dynamic Industry - Institute Interaction.

It also looks forward to create society oriented citizens with professional ethics with a blend of ethical and competency.

Imparting Technology is changing with great speed in today's world and designing of curriculum suitable to this dynamic technology is a challenging task for any institute. Mahendra College of Engineering is taking all quality steps to meet out this challenge with the help of all stakeholders. Though the Institution already practices all quality oriented processes with NAAC status, it would like to move further successfully.

The Re-Assessment by NAAC will be a mile stone in the journey of the Institution.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																														
1.1.3	<p>Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years</p> <p>1.1.3.1. Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>8</td> <td>8</td> <td>5</td> <td>4</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>2</td> <td>3</td> <td>5</td> <td>4</td> </tr> </tbody> </table> <p>Remark : However, the participation of teachers in the Board of Studies are from the same Mahendra Educational Trust</p>	2017-18	2016-17	2015-16	2014-15	2013-14	8	8	8	5	4	2017-18	2016-17	2015-16	2014-15	2013-14	3	2	3	5	4										
2017-18	2016-17	2015-16	2014-15	2013-14																											
8	8	8	5	4																											
2017-18	2016-17	2015-16	2014-15	2013-14																											
3	2	3	5	4																											
1.3.3	<p>Percentage of students undertaking field projects / internships</p> <p>1.3.3.1. Number of students undertaking field projects or internships</p> <p>Answer before DVV Verification : 1118</p> <p>Answer after DVV Verification: 1053</p>																														
2.1.2	<p>Average Enrollment percentage</p> <p>(Average of last five years)</p> <p>2.1.2.1. Number of students admitted year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>516</td> <td>540</td> <td>705</td> <td>580</td> <td>610</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>516</td> <td>451</td> <td>705</td> <td>568</td> <td>540</td> </tr> </tbody> </table> <p>2.1.2.2. Number of sanctioned seats year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	2017-18	2016-17	2015-16	2014-15	2013-14	516	540	705	580	610	2017-18	2016-17	2015-16	2014-15	2013-14	516	451	705	568	540	2017-18	2016-17	2015-16	2014-15	2013-14					
2017-18	2016-17	2015-16	2014-15	2013-14																											
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2017-18	2016-17	2015-16	2014-15	2013-14																											

3.2.2	<p>Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years</p> <p>3.2.2.1. Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="306 389 1046 524"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>52</td> <td>26</td> <td>22</td> <td>18</td> <td>16</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 602 1046 736"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>21</td> <td>7</td> <td>9</td> <td>7</td> <td>6</td> </tr> </tbody> </table> <p>Remark : Corrected based on the revised supporting document</p>	2017-18	2016-17	2015-16	2014-15	2013-14	52	26	22	18	16	2017-18	2016-17	2015-16	2014-15	2013-14	21	7	9	7	6
2017-18	2016-17	2015-16	2014-15	2013-14																	
52	26	22	18	16																	
2017-18	2016-17	2015-16	2014-15	2013-14																	
21	7	9	7	6																	
3.3.1	<p>The institution has a stated Code of Ethics to check malpractices and plagiarism in Research</p> <p>Answer before DVV Verification : Yes</p> <p>Answer After DVV Verification: No</p> <p>Remark : The Code of Ethics is not linked to the Institution and does not ascertain that the Institution practices them.</p>																				
3.3.4	<p>Number of research papers per teacher in the Journals notified on UGC website during the last five years</p> <p>3.3.4.1. Number of research papers in the Journals notified on UGC website during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="306 1373 1046 1507"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>72</td> <td>63</td> <td>40</td> <td>54</td> <td>53</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 1585 1046 1720"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>42</td> <td>43</td> <td>30</td> <td>29</td> <td>24</td> </tr> </tbody> </table> <p>Remark : Corrected as per revised input</p>	2017-18	2016-17	2015-16	2014-15	2013-14	72	63	40	54	53	2017-18	2016-17	2015-16	2014-15	2013-14	42	43	30	29	24
2017-18	2016-17	2015-16	2014-15	2013-14																	
72	63	40	54	53																	
2017-18	2016-17	2015-16	2014-15	2013-14																	
42	43	30	29	24																	
3.4.3	<p>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</p> <p>3.4.3.1. Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-</p>																				

wise during the last five years

Answer before DVV Verification:

2017-18	2016-17	2015-16	2014-15	2013-14
25	18	10	10	13

Answer After DVV Verification :

2017-18	2016-17	2015-16	2014-15	2013-14
26	18	10	10	13

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

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

Answer before DVV Verification:

2017-18	2016-17	2015-16	2014-15	2013-14
85.0	85.0	75.0	60.0	55.0

Answer After DVV Verification :

2017-18	2016-17	2015-16	2014-15	2013-14
80.87	81.36	73.28	57.59	51.45

Remark : Actual expense not HIGHLIGHTED

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

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

Answer before DVV Verification:

2017-18	2016-17	2015-16	2014-15	2013-14
35.47	33.66	32.38	29.73	24.84

Answer After DVV Verification :

2017-18	2016-17	2015-16	2014-15	2013-14
35.46	33.67	32.38	29.73	24.84

Remark : Actual expenses not HIGHLIGHTED

4.2.6 Percentage per day usage of library by teachers and students

4.2.6.1. Average number of teachers and students using library per day over last one year

Answer before DVV Verification : 375

Answer after DVV Verification: 374

Remark : The log book should be copy of the original and not printout

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

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)

Answer before DVV Verification:

2017-18	2016-17	2015-16	2014-15	2013-14
107.39	105.31	94.18	70.90	65.74

Answer After DVV Verification :

2017-18	2016-17	2015-16	2014-15	2013-14
107.40	105.31	94.18	70.90	65.74

Remark : Expenses pertaining to the required Metric is not HIGHLIGHTED

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

5.2.2.1. Number of outgoing students progressing to higher education

Answer before DVV Verification : 121

Answer after DVV Verification: 112

Remark : Corrected based on the acceptance of the HEI

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

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

Answer before DVV Verification:

2017-18	2016-17	2015-16	2014-15	2013-14
162	112	138	101	74

Answer After DVV Verification :

2017-18	2016-17	2015-16	2014-15	2013-14
170	129	138	101	73

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)

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

Answer before DVV Verification:

2017-18	2016-17	2015-16	2014-15	2013-14
1.10	1.00	0.75	0.55	0.50

Answer After DVV Verification :

2017-18	2016-17	2015-16	2014-15	2013-14
212.34	210.85	190.95	165.87	149.69

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

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

Answer before DVV Verification:

2017-18	2016-17	2015-16	2014-15	2013-14
30	25	12	7	5

Answer After DVV Verification :

2017-18	2016-17	2015-16	2014-15	2013-14
21	25	10	5	5

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 (AQR) 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

Answer before DVV Verification : A. Any 4 of the above

Answer After DVV Verification: A. Any 4 of the above

7.1.1	<p>Number of gender equity promotion programs organized by the institution during the last five years</p> <p>7.1.1.1. Number of gender equity promotion programs organized by the institution year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="306 389 1046 524"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>8</td> <td>8</td> <td>8</td> <td>6</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 602 1046 736"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>8</td> <td>8</td> <td>5</td> <td>6</td> </tr> </tbody> </table>	2017-18	2016-17	2015-16	2014-15	2013-14	10	8	8	8	6	2017-18	2016-17	2015-16	2014-15	2013-14	10	8	8	5	6
2017-18	2016-17	2015-16	2014-15	2013-14																	
10	8	8	8	6																	
2017-18	2016-17	2015-16	2014-15	2013-14																	
10	8	8	5	6																	
7.1.8	<p>Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years</p> <p>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)</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="306 1014 1046 1149"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>10.12</td> <td>9.86</td> <td>9.15</td> <td>8.02</td> <td>7.59</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 1227 1046 1361"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Remark : Unable to identify expenditure</p>	2017-18	2016-17	2015-16	2014-15	2013-14	10.12	9.86	9.15	8.02	7.59	2017-18	2016-17	2015-16	2014-15	2013-14	0	0	0	0	0
2017-18	2016-17	2015-16	2014-15	2013-14																	
10.12	9.86	9.15	8.02	7.59																	
2017-18	2016-17	2015-16	2014-15	2013-14																	
0	0	0	0	0																	
7.1.9	<p>Differently abled (Divyangjan) Friendliness Resources available in the institution:</p> <ol style="list-style-type: none"> 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) <p>Answer before DVV Verification : A. 7 and more of the above</p> <p>Answer After DVV Verification: A. 7 and more of the above</p>																				

2.Extended Profile Deviations

ID	Extended Questions																				
1.1	<p>Number of courses offered by the institution across all programs during the last five years</p> <p>Answer before DVV Verification : 764</p> <p>Answer after DVV Verification : 512</p>																				
2.3	<p>Number of outgoing / final year students year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>475</td> <td>408</td> <td>304</td> <td>299</td> <td>477</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>465</td> <td>408</td> <td>304</td> <td>307</td> <td>470</td> </tr> </tbody> </table>	2017-18	2016-17	2015-16	2014-15	2013-14	475	408	304	299	477	2017-18	2016-17	2015-16	2014-15	2013-14	465	408	304	307	470
2017-18	2016-17	2015-16	2014-15	2013-14																	
475	408	304	299	477																	
2017-18	2016-17	2015-16	2014-15	2013-14																	
465	408	304	307	470																	
3.2	<p>Total Expenditure excluding salary year-wise during the last five years (INR in Lakhs)</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>693.47</td> <td>695.70</td> <td>636.83</td> <td>534.54</td> <td>507.22</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1"> <thead> <tr> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>693.4</td> <td>695.70</td> <td>636.83</td> <td>534.54</td> <td>507.22</td> </tr> </tbody> </table>	2017-18	2016-17	2015-16	2014-15	2013-14	693.47	695.70	636.83	534.54	507.22	2017-18	2016-17	2015-16	2014-15	2013-14	693.4	695.70	636.83	534.54	507.22
2017-18	2016-17	2015-16	2014-15	2013-14																	
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