



### **YEARLY STATUS REPORT - 2020-2021**

Part A		
Data of the Institution		
1.Name of the Institution	MAHENDRA INSTITUTE OF TECHNOLOGY	
Name of the Head of the institution	Dr. T. ELANGO	
Designation	PRINCIPAL	
Does the institution function from its own campus?	Yes	
Phone no./Alternate phone no.	04288288527	
Mobile no	9443457824	
Registered e-mail	principal@mahendratech.org	
Alternate e-mail	atelango@gmail.com	
• Address	Mahendra Institute of Technology, Salem- Tiruchengode Highway, Mahendrapuri, Mallasamudram, Namakkal DT	
• City/Town	Namakkal	
• State/UT	Tamil Nadu	

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Pin Code	637503
2.Institutional status	
<ul> <li>Affiliated         /Constituent</li> </ul>	Affiliated
Type of Institution	Co-education
• Location	Rural
Financial Status	Self-financing
Name of the     Affiliating University	Anna University
Name of the IQAC Coordinator	Dr. L. SELVARAJAN
Phone No.	04288288527
Alternate phone No.	04288288528
• Mobile	9894098486
IQAC e-mail address	iqac@mahendratech.org
Alternate Email address	selvarajanl@mahendratech.org
3.Website address (Web link of the AQAR (Previous Academic Year)	https://mahendratech.org/AQAR/AQAR_2019_2020.pdf
4.Whether Academic Calendar prepared during the year?	Yes
<ul> <li>if yes, whether it is uploaded in the Institutional website Web link:</li> </ul>	https://mahendratech.org/academic/Academic- Calendar-2020-2021.pdf
5.Accreditation Details	

year?

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	A	3.04	2019	28/03/2019	27/03/2024

# 6.Date of Establishment of IQAC

12/06/2017

### 7.Provide the list of funds by Central / State Government UGC/CSIR/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.,

Institutional/Department /Faculty	Scheme	Funding Agency	Year of award with duration	Amount
NIL	NIL	NIL	NIL	NIL

8. Whether composition of IQAC as per latest NAAC guidelines	Yes
Upload latest notification of formation of IQAC	<u>View File</u>
9.No. of IQAC meetings held during the year	4
Were the minutes of IQAC meeting(s) and compliance to the decisions have been uploaded on the institutional website?	Yes
10.Whether IQAC received funding from any of the funding agency to support its activities during the	No

# 11. Significant contributions made by IQAC during the current year (maximum five bullets)

Active participation in the curriculum development and refinements from 2020-2021. University Grants Commission (UGC), New Delhi and Anna University, Chennai granted Fresh autonomous status for 10 years from 2019-2020 to 2028-2029.

Improved Industry linkages and effective training for placements were given to our students.439 students were placed in 48 Industries

Motivated faculty members to attend various programmes. 128 Faculty members attended Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programme etc during the year 2020-2021.

Academic and Administrative Audit was Conducted to ensure quality and scope for further improvements

41 Research papers have been published by our faculty members. Faculty members are further informed to intensify their research and publications in SCI/SCIE/Scopus listed journals.

Motivated NSS team to conduct covid 19 Awareness programmes and such programmes were organized in near by villages

Participated in National Institute Ranking Framework (NIRF) for the academic year 2020-2021

# 12.Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

Plan of Action	Achievements/Outcomes
Innovation and entrepreneurship-related activities	The institute has played a very active role in undertaking extension and outreach programs through IIC
Research Activities	More than seven research papers have been published by various department faculties.
Virtual FDPs, Workshop and Seminars - Conducted/Attended	More than Eight virtual programmes conducted by various department faculties. Our faculties have participated in virtual FDPs, seminars and workshops in various institutions.
Exploring ways to integrate the digital library into students	New Mahendra digital server has been introduced for students to use the digital library.
Conduct various social activities by clubs	Covid-19 Awareness programmes conducted by NSS cell and Department clubs. Yoga training program organized by NSS team through online.
13.Whether the AQAR	

# 13. Whether the AQAR was placed before statutory body?

Yes

• Name of the statutory body

Name	Date of meeting(s)
Governing Body	20/08/2020

#### 14. Whether institutional data submitted to AISHE

Year	Date of Submission	
2020-2021	24/02/2022	

#### 15. Multidisciplinary / interdisciplinary

- To provide very high standard of technical knowledge in all fields of engineering through quality education
- To encourage the students to face the technical scenario with excellent technical skills obtained through critical thinking, quantitative reasoning
- To motivate students with good moral support by conducting various counseling events to strengthen them and gain more knowledge
- To ensure that every student is aware of the role and responsibilities of a professional engineer in the society
- To develop life-long learning skills that allow them to be adaptive and responsive to changes in society, technology and the environment, as well as career demands
- To provide an accredited dynamic scholarly environment wherein students learn to develop technology, communications and leadership abilities to emerge as a complete professional.

### 16.Academic bank of credits (ABC):

Every B.E. / B. Tech. Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- 1. Humanities and Social Sciences (HS) courses include Technical English, Employability Skills, Engineering Ethics and Human Values, Communication skills, Environmental Science and Engineering.
- 2. Basic Sciences (BS) courses include Mathematics, Physics, Chemistry, Biology, etc.
- 3. Engineering Sciences (ES) courses include Engineering practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation etc.
- 4. Professional Core (PC) courses include the core courses relevant to the chosen specialization/branch.
- 5. Professional Elective (PE) courses include the elective courses relevant to the chosen specialization/ branch.
- 6. Open Elective (OE) courses include the courses relevant to the chosen specialization / branch which a student can choose from the curriculum of other B.E. / B. Tech. programmes offered in the College and courses offered by the Departments of Science and Humanities.
- 7. Employability Enhancement Courses (EEC) include Project Work and/or Internship, Seminar, Professional Practices, Case Study and Industrial/Practical Training.

Curriculum of a semester shall normally have a blend of 5 or 6 lecture courses and laboratory courses not exceeding 3. In addition, Employability Enhancement Course(s) may also be included. Each course may have credits assigned as per clause 4.4. However, the total number of courses per semester shall not exceed 10 (including EEC).

Each course is assigned certain number of credits based on the following:

Contact period per week	Credits
1 Lecture Period	1
1 Tutorial Period	1
<pre>2 Practical Periods (Laboratory /Seminar / Project Work, etc.)</pre>	1

Every semester we issue mark sheets in which credits earned by the students for each course is clearly mentioned.

#### 17. Skill development:

We firmly believe that the best learning takes place through extensive interactions with the industry. We have signed MoUs (Memorandum of Understanding) with various organizations in the Engineering and Technology sectors through which summer internships and 6 months project internships opportunities are offered to the students.

In order that our students become competent engineers the training and placement cell of our institute plays a vital role by being a platform for Corporate and Young graduates to interact for mutual benefit. Services are provided throughout the year to prepare students and help those secure placements. The number of students placed through campus placement programmes is on the rise every year.

Center of Excellence for Industry Innovation & Practice (CEIIP) is the unique strength of our institute through which the students are given hands on training in the industries directly.

Objective: To exploit the opportunity provided through the Indo - German bilateral partnership in the area of skill development by providing hands-on training in select areas of engineering to our students.

Resource Person: These Hands-on training was conducted by the Senior Expert Hans-Joachim Schrodt, a German who has more than 30 years of professional experience as a Teacher. Recently he helped an Indian company in setting-up a whole training institute including building, curricula development, equipment specifications, teacher training, testing, examinations, following the German Dual System.

#### Theory and Practice

Prof. Hans-Joachim Schrodt has interacted with our teachers about Germany's dual system of education and given lectures on the basics of the following focused areas of engineering such as Mechanics, Machining, Metrology, CNC and Robotics, Pneumatic/ Hydraulic Machineries, Automatics and Welding Equipments and took our students to the Industries at Coimbatore for practical training.

#### Outcomes:

- Hands-on training links theory and practice
- Hands-on training expose students to challenges and obstacles they might encounter on the job
- Hands-on training helps to retain concepts and ideas to take up interviews better
- In-plant training creates the opportunity for the student to explore their practical knowledge and skill.
- Students will approach any problem in industrial perspective once they are directly exposed to industrial training.
- It creates an opportunity for the students to become an entrepreneur.

#### Evidence of Success

Following the exposure given to our teachers and students by Prof. Hans-Joachim Schrodt, we have approached Axis Global institute for industrial training (AGIIT) and Coimbatore industrial infrastructure association (COINDIA) for direct training at their industries. Two batches of our Mechanical Engineering students have been trained by these industries so far. The training helped few students from these batches to get their employments. We took an element of the German's dual system of education and are pleased to support our "Skill India" and "Make in India" initiatives.

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

The institution promotes college-neighborhood network community development by conducting regular activities related to social responsibilities of the institute.

NSS Units comprising of more than all students are active in community development activities.

The following activities are doing for community development.

- NSS camp and village adaption
- AIDS Awareness programmes
- Tree Plantation
- World Water Day Celebration
- International women's day celebration
- Rural Area Development

- Swachh bharat International
- yoga day
- Women's empowerment and health awareness
- Service and maintenance of household appliances
- Created awareness about Energy saving and power factor correction
- Leadership Skills and Soft Skills Training
- National Voters Day
- Blood Donation camp
- Medical Camp
- NSS Day celebration
- Stress Management
- International Education Fair
- Eye Camp
- Organ Donation Camp
- Uzhavar vizha

Additionally many special camps are conducting with the help of NSS unit and non government organizations for the development of neighborhood network community.

The institute is aware of its role in campus cum community connections, well being of its neighborhood as well as build student's interest for service orientation and good citizenship.

To track student involvement in various social activities, our institute has established a system of faculty members as mentors for each 20 students to keep records of their participation in such activities and counseling the students in various activities.

Further, at the end of the semester, such data is compiled at HODs level and in consultation with Principal they are awarded as best students by the Chairman in Annual Day Celebration.

The stake holders (students, faculty, parents, alumni, employers) interact with the institution through associated events like alumni meet, parents meet, students feedback, employers feedback and faculty feedback. This helps the institution to obtain their perceptions about overall performance and quality of the institution. The institute plans and organizes number of extension and outreach programs in neighborhood population. The clubs like NSS, YRC and RRC of the institute is quite active in such endeavors.

During the orientation program of newly admitted students, the faculty /student coordinators of NSS and various societies, carryout presentation to student on the benefit and scope of extension activities. Information regarding proposed activities is notified through circulars, web notifications, in academic and hostel building on a regular basis. Every student encourages becoming a member of NSS/Societies for participation in extension activities. The institution sincerely practices Govt. social affirmative schemes for the development of under privileged communities.

The college NSS unit has been organizing programme in and outside the college for the benefit of nearby community. Required facilities are given to differently- able students. The institute takes the help of elder and influential people like village head, members of gram panchayat to ensure the involvement of local population in its community development activities. To win the confidence of local leaders the institute organizes various awareness programs like free healthcare camps, eye checkup camps, village cleaning drives and blood donation camps etc.

#### 19. Focus on Outcome based education (OBE): Focus on Outcome based education (OBE):

University Grant Commission (UGC), New Delhi and Anna University, Chennai granted Fresh Autonomous status for a period of 10 years from 2020-2021. The curriculum provided by the Anna University, Chennai is adopted for the students of Second, Third & Final Year under Regulation 2017. MIT Autonomous Curriculum is adapted for First Year Students under Regulation 2020. The institution aim is to develop and organize various activities for effective implementation of the curriculum with the approval of the Academic council members and Board of Study members.

The Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs) are well defined and stated in the Curriculum for the regulations 2017 and Regualtion 2020.

POs, PSOs and COs are formed by considering Vision and Mission statement of the college and the syllabus content. COs and POs are framed by the Heads of the department with the subject handling faculty along with subject experts.

Course committee meetings are conducted at regular intervals and the institute assists the faculty members to achieve these objectives by proper supporting systems. This helps to understand the course out comes easily. The COs is also dictated to the students while dictating the syllabus in the class and also present in the continuous internal examination question papers. Hence the student can very well aware of the COs of the subject.

The POs and COs are available in the course file prepared by the faculty member while mapping with POs faculty can clearly understand the course outcomes accordingly he can prepare the lesson plan etc. Institute takes due care for informing POs and COs to all the stakeholders. POs and COs for all programs and courses offered by the institution are displayed in the institute website for reference of all stakeholders.

The COs is published in Academic regulations and Curriculum book, and in institute website. They are made reachable to all the stake holders of the program through, faculty members, student awareness workshops, student induction programs and faculty meetings. All the

planning and execution are directed towards meeting these objectives faculty meetings.

The program outcomes and program specific outcomes are achieved through a curriculum that offers a number of courses. Each course has defined course outcomes that are linked to the program outcomes and a set of performance criteria that are used to provide quantitative measurement of how well course outcomes are achieved. The course outcomes are thus directly and quantitatively assessed, and are tied to the program outcomes and program specific outcomes. Therefore if the course outcomes are attained, those provide direct quantitative evidence to that program outcome and are attained. The course outcomes of each course are mapped to the Program Outcomes with a level of emphasis being strongly correlated (3), moderately correlated (2) and lightly correlated (1). Projects are reviewed by industrial experts to oversee whether they are in tune with the learning outcomes. The importance of employability is insisted upon as one of the main learning outcomes. Faculty members write COs of their respective course and refer them while executing the course plan. Faculty members refer the syllabus to understand POs and COs thoroughly before delivering the courses to students. Reviews of these POs and COs are taken by the stakeholders and suggestions are discussed in meetings. Revisions are done wherever required.

 Outcome based education is followed for the improvement of teaching learning process. Answer scripts are corrected and returned to the students within two days after the competition of the test/examination. Corrected answer scripts and results are reviewed by the faculty and the IQAC cordinator. The outcome of analysis will be used to improve the teaching and learning in the particular course.

#### 20. Distance education/online education:

- Students may be permitted to credit only one online course / Self Study course (3 credits) during the entire duration of study with the approval of Departmental Consultative Committee and Principal.
- Students may be permitted to credit online courses such as courses offered by NPTEL (which are provided with certificate) with the approval of Departmental Consultative Committee and Principal subject to a maximum of three credits. The student needs to obtain certification to become eligible for writing the End Semester Examination to be conducted by the College.
- The student can opt for Self Study course provided the student does not have current arrears and earns a CGPA of 8.0 and above.
- The Department may offer self study courses. The purpose of the course is to permit the student to study a course / a topic of the student"s choice. The students shall study on their own under the guidance of a faculty member. No formal lectures need be delivered. The syllabus of the course and mode of assessments

shall be approved by the Departmental Consultative Committee and forwarded to the Principal for the formal approval. Preferably one faculty member approved by the Head of the Department shall be responsible for the periodic monitoring and evaluation of the course.

• The self study course / online course of 3 credits can be considered instead of one elective course.

Extende	ed Profile		
1.Programme			
1.1			424
Number of courses offered by the institution	across all programs duri	ng the year	424
File Description	Documents		
Data Template	<u> </u>	<u>/iew File</u>	
2.Student			
2.1			2152
Number of students during the year			2152
File Description		Documents	
Institutional Data in Prescribed Format		View F	<u>ile</u>
			1
2.2			
2.2  Number of seats earmarked for reserved cate during the year	gory as per GOI/ State (	Govt. rule	542
Number of seats earmarked for reserved cate	gory as per GOI/ State (	Govt. rule	542
Number of seats earmarked for reserved cate during the year	Documents	Govt. rule	542
Number of seats earmarked for reserved cate during the year  File Description	Documents		
Number of seats earmarked for reserved cate during the year  File Description  Data Template	Documents		542
Number of seats earmarked for reserved cate during the year  File Description  Data Template  2.3	Documents		
Number of seats earmarked for reserved cate during the year  File Description  Data Template  2.3  Number of outgoing/ final year students during	Documents  Ing the year  Documents		
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Number of seats earmarked for reserved cate during the year  File Description  Data Template  2.3  Number of outgoing/ final year students during  File Description  Data Template  3.Academic	Documents  Ing the year  Documents	/iew File	

File Description	Documents	
Data Template	<u>View File</u>	
3.2		012
Number of sanctioned posts during the year		213
File Description	Documents	
Data Template	<u>View File</u>	
4.Institution		
4.1		60
Total number of Classrooms and Seminar halls		80
4.2		600 30
Total expenditure excluding salary during the year (II	NR in lakhs)	688.38
4.3		600
Total number of computers on campus for academic	purposes	620

#### Part B

#### **CURRICULAR ASPECTS**

### 1.1 - Curricular Planning and Implementation

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

University Grant Commision (UGC), New Delhi and Anna University, Chenna granted Fresh Autonomous status for a period of 10 years from 2020-2021 The curriculum provided by the Anna University, Chennai is adopted for the students of Second, Third & Final Year under Regulation 2017. MIT Autonomous Curriculum is adapted for First Year Students under Regulation 2020 . The institution aim is to develop and organize variou plans for effective implementation of the curriculum to be fulfilled by the Academic council members and Board of Study members in which first step is taken in the beginning of academic year to discuss about the curriculum gap. According to the Academic Calender teachers are instructed to prepare their Action plans. Time tables are prepared for all the classes of the respective programs. All the teachers follow teaching schedule as per the time table. Our teaching faculty update themselves by attending refresher courses, workshops, Faculty development programs, orientation programs conferences and seminars organized by various colleges & UGC, HRD centers of Universities which help them for accomplishment of their subject delivery & curriculum mor effectively. Curriculum delivery by the faculty is periodically monitored by the respective HOD's and Principal.

File Description	Documents
Upload relevant supporting document	<u>View File</u>
Link for Additional information	https://mahendratech.org/academic/Academic%20Calender%202020 2021%20Even%20Semester.pdf

## 1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuou Internal Evaluation (CIE)

Academic calendar is the back bone of various teaching-learning plans, prepared by the institute before start of every semester. The institute academic calendar is prepared in-line with Anna University academic calendar which is available in the university web-portal. The institute academic calendar incorporates Numberof working days, Unit wise syllabu completion, Continuous Internal Examination dates, Commencement dates o practical and theory examination and Dates for all curricular, cocurricular and extra-curricular activities. Two Continuous Internal Assessment Examinations (CIE) and one model exam will be conducted in every academic course of each semester. The model examination covers full syllabus of a course, hence student can revise all the topics of the syllabus. Outcome based education is followed for the improvement o teaching learning process. Answer scripts are corrected and returned to the students within two days after the completion of the test/examination. Few answer scripts and results are reviewed by the faculty and the IQAC coordinator. 1. Retest will be conducted for absentees in the internal assessment examinations. Students are given opportunities to improve their performance in Internal Evaluation through retest and assignments. 2. Tutorial classes are conducted for all the subjects, to clarify doubts.

File Description	Documents	
Upload relevant supporting document	<u>View File</u>	
Link for Additional information	https://mahendratech.org/academic/Academic%20Calender%202020 2021%20Odd%20Semester.pdf	

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

A. All of the above

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

File Description	Documents
Details of participation of teachers in various bodies/activities provided as a response to the metric	<u>View</u> File
Any additional information	<u>View</u> File

### 1.2 - Academic Flexibility

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

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

11

File Description	Documents
Any additional information	<u>View File</u>
Minutes of relevant Academic Council/ BOS meetings	<u>View File</u>
Institutional data in prescribed format (Data Template)	<u>View File</u>

### 1.2.2 - Number of Add on /Certificate programs offered during the year

### 1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement for year: (As per Data Template)

19

File Description	Documents
Any additional information	<u>View File</u>
Brochure or any other document relating to Add on /Certificate programs	<u>View File</u>
List of Add on /Certificate programs (Data Template )	View File

# 1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year

File Description	Documents
Any additional information	View File
Details of the students enrolled in Subjects related to certificate/Add-on programs	View File

#### 1.3 - Curriculum Enrichment

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

There are various committees which take care of the students such as:

(i) Women Empowerment Cell (Gender Equality):

It is formed by one coordinator and all the women faculty members in th institution. With the slogan of women empowerment the question arise that "are women become really strong" and "is long term struggle has ended". Many programmes have been implemented and run by our institutio such as International Women's day, mother's day, etc in order to bring awareness in the Girl students and society about the true rights and value of the women in the development of the nation.

Women Grievances Committee:

It is formed only by female faculty members consisting of one coordinator and two members and also one student representative from each department. This is our privilege to state that in our college the problems related to women students like Sexual nuisance, eve teasing ar completely nil as we have a very good discipline system in the institution.

(ii) Environment and Sustainability:

It appreciates the ethical, cross-cultural, historical context of environmental issues and the links between human and natural systems. This enables the students to learn about the eco-system and other environmental factors.

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

### 1.3.2 - Number of courses that include experiential learning through project work/field work/internship during the year

File Description	Documents
Any additional information	<u>View File</u>
Programme / Curriculum/ Syllabus of the courses	<u>View File</u>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View File
MoU's with relevant organizations for these courses, if any	No File

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Institutional Data in Prescribed Form	at		View File
1.3.3 - Number of students undert	taking proje	ct work/field work/ internsh	ips
512			
File Description			Document
Any additional information			<u>View</u> <u>File</u>
List of programmes and number of st /internships (Data Template)	udents under	rtaking project work/field work	View File
1.4 - Feedback System			
syllabus and its transaction at the from the following stakeholders St Teachers Employers Alumni	cudents	A. All of the above	
File Description	Documents		
URL for stakeholder feedback report	t https://mahendratech.org/download/1_4_1.pd		
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management		<u>View File</u>	
Any additional information		No File Uploaded	l .
1.4.2 - Feedback process of the In may be classified as follows	stitution	A. Feedback collected, analyzed ar action taken and feedback available on website	
File Description	Documents		
Upload any additional information	View File		
URL for feedback report	https://mahendratech.org/download/1_4_2.pdf		
TEACHING-LEARNING AND EVA	LUATION	_	
2.1 - Student Enrollment and Profi	ile		

### 2.1.1 - Enrolment Number Number of students admitted during the year

### 2.1.1.1 - Number of students admitted during the year

File Description	Documents
Any additional information	<u>View File</u>

Institutional data in prescribed format	<u>View File</u>
institutional data in presented format	

# 2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)

### 2.1.2.1 - Number of actual students admitted from the reserved categories during the year

440

File Description	Documents
Any additional information	<u>View File</u>
Number of seats filled against seats reserved (Data Template)	View File

#### 2.2 - Catering to Student Diversity

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

Programmes for Advanced Learners:

- They are advised to do mini projects and also to participate in the project competitions conducted by other institutions.
- Advanced learners are also involved in clearing the doubts of slow learners
- English communication
- Basic computer programming
- Aptitude skills
- Department oriented skill development for placements
- Club activities
- They are guided to refer refereed journals to know the current technologies in their specific areas and to apply their knowledge and skill to solve practical problems.

#### Programmes for Slow learners:

- A bridge course and a test are conducted for the students, entering to the first year and also to the second year through lateral entry
- Review of their class attendance and continuous internal examinatio performance.
- Effective mentoring system for the welfare of the students; 20 students are attached to each faculty as mentor.
- Remedial Classes are conducted by the subject experts beyond workin hours which is not a part of their time table.
- Short form notes are given to them instead of learning the whole book.

The Institution conducts bridge courses for all the first year students in Communicative English, Mathematical Foundation and Computer Literacy course before the commencement of regular classes.

File Description Documents

Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

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

Number of Students	Number of Teachers
2152	213

File Description	Documents
Any additional information	<u>View File</u>

#### 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

Student centric methods:

The institution supports student-centric learning through its efforts b creating a learning atmosphere which allows the students to think in different ways, respond and pose questions.

Student groups are formed in the classes under each mentor which may comprise of advanced and slow learners. Through this group the students can learn from each other, the individual in the group can convey his views to the other students in their group on a particular topic and they can discuss which may be of class work or any other academic related topics. Experiential learning:

- 1. In the laboratory, while conducting lab experiments faculty members explaining the concepts of the experiments, working principles of the equipment and the parameters related to that experiment.
- 2. At the time of IV and workshops the students experimentally learn the process which is related to the theory subjects.

Participative learning and problem solving methodologies:

Student's seminars are arranged in each theory subjects. Students
prepare for the seminar with the guidance of the faculty member and
also discuss with their classmates. It makes several participative
learning activities to broaden the scope of education imparted to
the students.

File Description	Documents
Upload any additional information	<u>View File</u>
Link for additional information	Nil

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

#### in maximum of 200 words

The innovation teaching is done by using the ICT tools in the class roo teaching, conducting webinars, model making etc. Innovative technique of flip classroom is used in curriculum delivery.

All the class rooms are provided with Wi-Fi facility.

The institution conducted the Online Classes through Zoom, Google Meet etc., during the pandemic situation for the year 2020-2021.

Students are encouraged to be interactive in class through discussions.

Each department is provided with LCD projector, computer with LAN and internet connection in the seminar hall.

Faculty can use the seminar hall for teaching where they can use black board, LCD projector during the lecture delivery.

SMART Board and ICT supportive learning methods are being used by the faculty for better content delivery. (for demonstration, video (NPTEL), audio lectures).

One can access the database of digital library, NPTEL videos and other internet facilities which consists of course material and Recorded vide lecturesFaculty and Students can access the journal resources also in the seminar hall.

In order to improve the self-learning capability of the students the following facilities are provided. 1. Central library and Department library 2. Digital library, Journals and Magazines. 3. E-Learning and Online Certification Courses NPTEL course materials

File Description	Documents
Upload any additional information	No File Uploaded
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	

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

#### 2.3.3.1 - Number of mentors

File Description	Documents
Upload, number of students enrolled and full time teachers on roll	<u>View File</u>
Circulars pertaining to assigning mentors to mentees	No File Uploaded
Mentor/mentee ratio	<u>View File</u>

#### 2.4 - Teacher Profile and Quality

#### 2.4.1 - Number of full time teachers against sanctioned posts during the year

213

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	<u>View File</u>
Any additional information	No File Uploaded
List of the faculty members authenticated by the Head of HEI	<u>View File</u>

- 2.4.2 Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)
- 2.4.2.1 Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

10

File Description	Document
Any additional information	<u>View</u> <u>File</u>
List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year (Data Template)	<u>View</u> File

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

### 2.4.3.1 - Total experience of full-time teachers

764.82

File Description	Documents
Any additional information	<u>View</u> File
List of Teachers including their PAN, designation, dept. and experience details(Data Template)	View File

#### 2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

Mahendra Institute of Technology is adopting various reforms in Continuous Internal Examination and Evaluation. The institute is Autonomous, but affiliated to Anna University Chennai, hence it follows the regulation of the university with reforms for the benefit of students. Two Continuous Internal Assessment Examinations (CIE) and one model exam will be conducted in every academic course of each semester.

The model examination covers full syllabus of a course, hence student can revise all the topics of the syllabus.

The Department exam cell in charge is responsible for the smooth conductof internal examinations.

A formal notification for internal examination is duly served to all th faculty members by the department exam cell in charge.

Faculty members are expected to submit their question papers to the department exam cell in charge after getting approval and verification from the HoD before the commencement of internal examination.

After receiving the question paper, Internal exams was conducted as per the given schedule.

After evaluation of answer scripts the marks are recorded for obtaining the COs attainment.

Finally, End semester examinations for theory and practical courses conducted.

File Description Documents	
Any additional information	<u>View File</u>
Link for additional information	Nil

#### 2.5.2 - Mechanism to deal with internal examination related grievances is transparent, timebound and efficient

- Two continuous internal examinations of 11/2 hours for 50 marks and a model examination of 3 hours for 100 marks.
- The dates of the examinations are mentioned in the academic calendar, supplied to the students and displayed in the notice boar on the first day of the semester.
- The format of the question papers are displayed in the notice board and discussed in the class room.
- The same format is followed for all the subjects in the institute. Hence the dates of the examination, syllabus of the CIE and questio paper pattern are transparent to all the students.
- The QPs of the examinations are verified by the moderation committe in order to rectify the mistakes and the ambiguity in the questions are fully rectified.

The corrected examination answer scripts are distributed to the student within two days after completion of the examination. If there is any deviation in awarding marks, it will be immediately clarified and rectified by the subject handling faculty. Those answers scripts are acknowledged by the students then few of them are collected and retaine in the department.

File Description	Documents

Any additional information	<u>View File</u>
Link for additional information	Nil

#### 2.6 - Student Performance and Learning Outcomes

- 2.6.1 Programme and course outcomes for all Programmes offered by the institution are state and displayed on website and communicated to teachers and students.
  - The institute is Autonomous and affiliated to Anna University, Chennai. The Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs) are well defined and stated in the department Curriculum for the regulations 2017 and 2020.
  - POs, PSOs and COs are formed by considering Vision and Mission statement of the college and the syllabus content.
  - COs and POs are framed by the committee comprising the Heads of the department with the subject handling faculty along with subject experts.
  - Course committee meetings are conducted at regular intervals and th institute assists the faculty members to achieve these objectives b proper supporting systems. This helps to understand the course out comes easily.
  - The COs is also dictated to the students while dictating the syllabus in the class and also present in the continuous internal examination question papers. Hence the student can very well aware of the COs of the subject.
  - The POs and COs are available in the course file prepared by the faculty member while mapping with POs faculty can clearly understan the course outcomes accordingly he can prepare the lesson plan etc.
  - Institute takes due care for informing POs and COs to all the stake holders.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	https://mahendratech.org/academic/R2017%20COs.pd:
Upload COs for all Programmes (exemplars from Glossary)	<u>View File</u>

### 2.6.2 - Attainment of Programme outcomes and course outcomes are evaluated by the institution.

Assessment gives us essential information about what the students are learning and about the extent to which meeting our teaching goals.

Attainment of Course outcomes:

Attainment of course outcomes are assessed by considering the following two categories of marks

- 1. Internal Assessment Marks
- 2. End Semester University Examination Results

The internal assessment mark for the theory is the average of the three internal assessment examinations and for laboratory average mark of records and one model practical examination. Project work is evaluated by conducting three review sessions, thesis submission and Viva-voce examination batch-wise. Grade points are given by the university in the end semester examination results and the equivalent marks are given in the table.

The course outcomes are framed by the respective faculty members and HC with the help of an expert. Subject wise CO attainment leve is calculated by adding 20% of the final internal assessment attainment level (given in the table) with and 80% of end semester examination attainment level for each subject is calculated. Thus, the average of percentage of students attaining the entire COs decides the CO attainment level.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional information	Nil

#### 2.6.3 - Pass percentage of Students during the year

# 2.6.3.1 - Total number of final year students who passed the university examination during the year

439

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	View File
Upload any additional information	<u>View File</u>
Paste link for the annual report	https://mahendratech.org/download/Annual_Report_2020- 2021.pdf

### 2.7 - Student Satisfaction Survey

#### 2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution

may design its own questionnaire) (results and details need to be provided as a weblink)

http://www.mahendratech.org/download/2.7 2020-21..pdf

#### RESEARCH, INNOVATIONS AND EXTENSION

- 3.1 Resource Mobilization for Research
- 3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)
- 3.1.1.1 Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

NIL

File Description	Documents
Any additional information	No File Uploaded
e-copies of the grant award letters for sponsored research projects /endowments	No File Uploaded
List of endowments / projects with details of grants(Data Template)	<u>View File</u>

- 3.1.2 Number of teachers recognized as research guides (latest completed academic year
- 3.1.2.1 Number of teachers recognized as research guides

4

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

- 3.1.3 Number of departments having Research projects funded by government and non government agencies during the year
- 3.1.3.1 Number of departments having Research projects funded by government and non-government agencies during the year

NIL

File Description	Documents
List of research projects and funding details (Data Template)	<u>View File</u>
Any additional information	No File Uploaded
Supporting document from Funding Agency	No File Uploaded
Paste link to funding agency website	Nil

- 3.2 Innovation Ecosystem
- 3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and

#### transfer of knowledge

The institute has created an ecosystem for Research and Innovation by recruiting & developing desirable human resource, taking initiative for creation & dissemination of knowledge and establishing state of the art infrastructure.

Research and Development Centre: Department of Electronics and Communication Engineering and Department of Mechanical Engineering are approved as Research Centre's by Anna University, Chennai (ECE Code: 4750007, Mech code: 4750017) to carryout research activities in variou domains.

Mahendra Institute of Technology is committed to long term research in emerging areas of engineering and technology. Students and faculty conduct research in thrust areas of engineering.

Promoting Innovation: The College has created an Innovation & Entrepreneurship Development Cell (IEDC) and Institutional Innovation Council (IIC) for promoting innovation & entrepreneurship activities. The formation of IIC is as per the guidelines of MHRD & AICTE.

Center of Excellences: The faculty& students are encouraged to take up research & developmental activities by utilizing the existing resources Our center of Excellences Low Voltage Switchgear Lab & Renewable Energy Systems Lab, Salzer Electronics Ltd have helped our students to develop necessary skills & develop innovative projects in various domains.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	Nil

### 3.2.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the year

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

15

File Description	Documents
Report of the event	View File
Any additional information	View File
List of workshops/seminars during last 5 years (Data Template)	View File

#### 3.3 - Research Publications and Awards

#### 3.3.1 - Number of Ph.Ds registered per eligible teacher during the year

### 3.3.1.1 - How many Ph.Ds registered per eligible teacher within the year

2

File Description	Documents
URL to the research page on HEI website	https://mahendratech.org/research_center.php
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc (Data Template)	<u>View File</u>
Any additional information	View File

### 3.3.2 - Number of research papers per teachers in the Journals notified on UGC website during the year

# 3.3.2.1 - Number of research papers in the Journals notified on UGC website during the year

41

File Description	Documents
Any additional information	<u>View</u> <u>File</u>
List of research papers by title, author, department, name and year of publication (Data Template)	<u>View</u> File

- 3.3.3 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during the year
- 3.3.3.1 Total number of books and chapters in edited volumes/books published and paper in national/ international conference proceedings year wise during year

9

File Description	Documents
Any additional information	<u>View File</u>
List books and chapters edited volumes/ books published (Data Template)	View File

#### 3.4 - Extension Activities

3.4.1 - Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year

The NSS and its unit contributed the extension activity like covid awareness program; covid extension activity (Vaccination Program) and the yoga day celebration were successfully completed. The institution promotion activity involved through online mode in Hand Wash for preventing from Covid 19 to the school students.

EDC cell conducted Entrepreneurship Development Program conducted through online mode.

The following activities are doing for community development.

- WORLD ENTREPRENEURSHIP DAY
- National Innovation day
- Women's Day
- Social activities for Covid 19 awareness programme
- Awareness programme on Sanitizing and Hand Wash for preventing from Covid 19
- Awareness programme on Wearing Mask and Social Distancing for preventing from Covid 19
- Awareness programme on Stay home and Stay Safe for preventing from Covid 19
- Social activities for dengue awareness programme
- Tree plantation
- Road safety awareness programme
- World water day
- Blood Donation Camp
- National Education Day
- Trekking Camp
- Republic Day Celebrations
- YOGA TRAINING CAMP
- TREE PLANTATION CAMP
- CLEAN INDIA CAMP
- MEDICAL CAMP
- WORLD WATER AWARENESS CAMP
- STUDENTS MOTIVATIONAL CAMP
- Arduino ( Technical Course)
- AIDS awareness
- World first aid day
- Medical Camp

• Blood Donation Camp

File Description	Documents
Paste link for additional information	https://www.macromiracles.com/
Upload any additional information	<u>View File</u>

- 3.4.2 Number of awards and recognitions received for extension activities from government / government recognized bodies during the year
- 3.4.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognized bodies year wise during the year

01

File Description	Documents
Any additional information	<u>View File</u>
Number of awards for extension activities in last 5 year (Data Template)	<u>View File</u>
e-copy of the award letters	No File Uploaded

- 3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs) during the year
- 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/ YR( etc., during the year

31

File Description	Documents
Reports of the event organized	View File
Any additional information	No File Uploaded
Number of extension and outreach Programmes conducted with industry, community etc for the during the year (Data Template)	View File

- 3.4.4 Number of students participating in extension activities at 3.4.3. above during year
- 3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachl Bharat, AIDs awareness, Gender issue etc. year wise during year

File Description	Documents
Report of the event	<u>View File</u>
10   10   10   10   10   10   10   10	

Any add	itional information	No File Uploaded
Number (Data Te	of students participating in extension activities with Govt. or NGO etcemplate)	<u>View File</u>

#### 3.5 - Collaboration

- 3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship during the year
- 3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year wise during the year

28

File Description	Documents
e-copies of related Document	<u>View File</u>
Any additional information	No File Uploaded
Details of Collaborative activities with institutions/industries for research, Faculty	View File

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

16

File Description	Document
e-Copies of the MoUs with institution./ industry/corporate houses	View File
Any additional information	<u>View</u> File
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	<u>View</u> File

#### INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 - Physical Facilities

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

Mahendra Institute of Technology follows the norms laid down by AICTE and Anna University for creating and enhancing the infrastructure facilities for effective teaching and learning. The Institute has classrooms (54-Nos), seminar-halls (6-Nos), various department laboratories, library with ILMS, and 64 Mbps internet facility including

Wi-Fi. Total area of our institution is 48562 sq.meters and it's built up area is 26605 sq.meters.

Laboratories/Computing facility/Auditorium

Our institution has seven computer laboratories with 620 computers connected through LAN or Wi-Fi connection with more than 64Mbps interne speed to share & access knowledge resources like NPTEL, MIT resources, youtube etc. The computers has various operating systems like windows-xp, windows-7 and ubuntu. Computers have various software packages like Mat lab, Xilinx, AutoCAD, Python Turbo-C, Java, etc., which are necessary for teaching and learning. The area of each compute laboratory is 120 sq. meters. Our institute boasts of huge, commodious and fully air conditioned Mahatma Gandhi Auditorium having a seating capacity of 1500 people to conduct various curricular and co-curricula events.

#### Library

The entire library is fully automated by software called AutoLib. The MIT library is well stacked with more than 51909 books related to engineering and technology, industry related topics and 52 rare books are also available. The library also owns its digital set up with 64Mbp speed to access e-journals, e-books and other online resources like DELNET, Shodhganga & ShodhSindhu.We have Core reference collection of McGraw Hill, Springer and Elsevier, chronicle, cencage learning is also available for all students to upgrade their knowledge.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	http://mahendratech.org/download/4.1.1.pdf

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

#### Gym

For all-round development of the students, there is fully equipped gym (100 sq. meters) - fitness zone containing all modern equipment.

#### Indoor games

The institution has fully competent and qualified Physical director to train the students to participate in various events conducted by the State/University levels. The indoor stadium has good lighting facilitie and the gallery can accommodate about 2500 students.

#### Outdoor games

The institute has playground measured 16,800 sq. meters to accommodate basketball court, ball badminton court, football ground, cricket ground

kho-kho court, Kabaddi court, handball court, hockey ground, volleyball ground and well laid 400 m standard track which all fall outdoor games.

#### Cultural Activities

The institution boasts of huge, commodious and fully air conditioned Mahatma Gandhi Auditorium having a seating capacity of 1500 people. It is used for conducting seminars, workshops, conferences, cultural events/activities and co-curricular activities.

This committee along with staffs and students of the college organizes an annual cultural function named Mahendra UTSAV. The aim of Mahendra UTSAV is to provide a platform for students to showcase their talents and organizational skills.

#### Yoga and Clubs

The Yoga is conducted for students regularly through Yoga club which wa established in the year 2013. Yoga day is organized every year. All our faculties, students and colleagues participate in this program. Student are encouraged to perform yoga during college cultural events and they take part in competitions and bring laurels and plaudits to the institution.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://mahendratech.org/sports.php?sports

# 4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

44

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://mahendratech.org/download/4_1_3.pd:
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<u>View File</u>

# 4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in Lakhs)

### 4.1.4.1 - Expenditure for infrastructure augmentation, excluding salary during the year (IN in lakhs)

20.12

File Description	Documents
Upload any additional information	No File

	Uploaded
Upload audited utilization statements	No File Uploaded
Upload Details of budget allocation, excluding salary during the year (Data Template	View File

#### 4.2 - Library as a Learning Resource

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

Library is automated using Integrated Library Management System (ILMS) Response:

The library of the college is automated through AutoLib Software . AutoLib - is a popular and advanced integrated Library automation management software, designed and developed by a team of Library & Information Science specialists, database designers, software developer and network specialists.

Name of ILMS software : AutoLib Software

Nature of automation (fully or partially) : Fully Automation

Version: 5.1 (Java Version) Year of Automation: 2013

It is maintained by library staff name Devaraj. Screenshots of autolib software is given in the additional link and purchase details of this software is attached as additional information.

1. Database Management - Cataloguing

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

- 2. Search (Online Public Access Catalogue)
- 3. Circulation Management Transaction
- 4.Report Management

This module is designed to generate and print a large number of reports such as: List of books by author, title, unique titles publisher, supplier, call number, subject, dept, accession number, date, book type and list of journals/publishers/suppliers/members, etc. It also allows to print accession register, catalogues, amount spent by type of documents/depts/subjects and bibliographic reports. All types of statistics/reports for the management can be generated for AICTE/NBA,UGC/NAAC, IMC.

5.System Administration

This module allow to:

 Create new user log-in, password and grant rights to access various modules

0

- Set over due chargeatvarious stages/holiday
- Maintain budget master
- o Back-up, export and import of data
- o Update database globally using various fields
- Generate charts

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for Additional Information	Nil

### 4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership ebooks Databases Remote access toeresources

B. Any 3 of the above

File Description	Documents
Upload any additional information	No File Uploaded
Details of subscriptions like e-journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	View File

# 4.2.3 - Expenditure for purchase of books/e-books and subscription to journals/e- journals during the year (INR in Lakhs)

# 4.2.3.1 - Annual expenditure of purchase of books/e-books and subscription to journals/e-journals during the year (INR in Lakhs)

11.08

File Description	Documents
Any additional information	View File
Audited statements of accounts	No File Uploaded
Details of annual expenditure for purchase of books/e-books and journals/e-journals during the year (Data Template)	View File

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

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

File Description	Documents	

Any additional information	No File Uploaded
Details of library usage by teachers and students	<u>View File</u>

#### 4.3 - IT Infrastructure

### 4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

The college upgraded the internet speed from 38 Mbps to more than 64 Mbps on 4-9-2016. All the computers of the institution are enabled with LAN connection .The total bandwidth is divided for all the computers through LAN and also through Wi-Fi hotspots. Eight Wi-Fi access points have been installed at various places.

Initially we have 471 computers with configuration of Intel Core2Duo/2.40GHZ/1GB RAM/160 GB SATA HDD/ Intel Onboard E'Net. In the academic year 2016 we bought 149 systems in model of Lenovo Think Cente and the enhanced configuration is IntelCoreI5/3.30GHz/2GB/250 GB SATA HDD/Intel Onboard E'Net.

HARDWARE UPDATES

S.No

Date of update

Description of goods

**UPDATED** 

Quantity

1

27/06/2018

Xerox Work Centre 5855 Printer

1No

2

22/11/2017

12V 100AH EXIDE 6EL TUBULAR BATTERY

30Nos

3

9/12/2017

CANON LBP 2900B LASER PRINTER

```
1No
11/6/2016
Think centre M79{10CQ-S02G00}
34 Nos
5
11/6/2016
Think centre M79{10CQ-A002IH}
115Nos
6
11/6/2016
18.5" LED COLOR MONITOR DELL
180 Nos
7
7/7/2016
NUMERIC 40 KVA UPS SYSTEM
1 No
8
6/5/2014
Oracle academy advanced computer science membership
1 No
14/3/2014
PROJECTOR
14Nos
10
4/10/2013
```

```
HP PROCUVE GIGABIT LX LC MINI GBIC MODULE
2Nos
11
4/10/2013
HP 1810G 24 PORT LAYER2 MANAGED SWITCH
4 Nos
12
4/10/2013
KRONE SC -SC COUPLER DUPLEX
4 NoS
13
4/10/2013
KRONE SC-LC SINGLE -MODE
2 Nos
SOFTWARE UPDATES
S.No
Date of update
Name of the Software
Quantity
1
2/1/2018
0365 Proplus open faculty
50Nos
2
2/1/2018
WINEDUE3 ALNG
50 Nos
```

9/5/22, 2:24 PM 3 2/1/2018 INTUNE OPEN FCLTY 50Nos 2/1/2018 MS SQL SvrStd 1No 5 2/1/2018 wIinSvrSTDCore 8Nos 6 2/1/2018 Ms ExchgSvtStd 1No 2/1/2018 Ms VSProSub/MSDN 1No 8 21/4/2017 AutoCAD 2018 1250 Nos 9 2/8/2017

**PALPAP** 

https://assessmentonline.naac.gov.in/public/index.php/hei/generateAqar\_HTML\_hei/MTQ5NDE=

1No

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	Nil

### 4.3.2 - Number of Computers

620

File Description	Documents
Upload any additional information	No File Uploaded
List of Computers	<u>View File</u>

### 4.3.3 - Bandwidth of internet connection in the Institution

A. ≥ 50MBPS

File Description	Documents
Upload any additional Information	<u>View File</u>
Details of available bandwidth of internet connection in the Institution	<u>View File</u>

### 4.4 - Maintenance of Campus Infrastructure

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

10.25

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts	No File Uploaded
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	View File

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.

Mahendra Institute of Technology management has established systems and procedures for maintaining both physical and academic supporting facilities.

• Technicians frequently checking appropriate facilities maintained under their supervision.

- Internal maintenance complaint register is maintained in each and every academic department
- Concern department heads are evaluating the external Maintenance Requirement request submitted by technicians.
- If maintenance/service identified is internal then required maintenance/service is registered in college/department maintenance register. College maintenance department is taken care of maintaining students' bench & table, staff table & chair, laborator work benches, chairs, stools, lights, fans, switches, water pumping motors, college bells, UPS, electricity generator and wirings. Separate complaint register is maintained by college supervisor for this purpose. Well experienced IT team is maintaining Computer hardware and software, printers, photocopier, AC, WIFI, Lecture Capturing System and LAN connection. Online IT helpdesk token register is maintained for this purpose.
- Once External maintenance/service is completed, HOD/Supervisor need to verify the acquired service with the help of technicians and the collect the bill from service provider, fill the cash voucher available in Administrative office and get approval from Administrative officer and principal then give it to the cashier to claim the bill amount.
- College amenity centre is taken care of stationary purchases in accordance with the request given by the various departments.
- College physical education department is taken care of sports equipment maintenance, gym maintenance, indoor and outdoor ground maintenance as per various gaming rules.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://mahendratech.org/academic/Maintenance_Procedures.pd:

### STUDENT SUPPORT AND PROGRESSION

### 5.1 - Student Support

- 5.1.1 Number of students benefited by scholarships and free ships provided by the Government during the year
- 5.1.1.1 Number of students benefited by scholarships and free ships provided by the Government during the year

1970

ŀ		
	File Description	Documents

	Upload self attested letter with the list of students sanctioned scholarship	No File Uploaded
	Upload any additional information	View File
	Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template)	View File

- 5.1.2 Number of students benefitted by scholarships, free ships etc. provided by the institution / non- government agencies during the year
- 5.1.2.1 Total number of students benefited by scholarships, free ships, etc provided by the institution / non- government agencies during the year

1065

File Description	Documents
Upload any additional information	No File Uploaded
Number of students benefited by scholarships and free ships institution / non-government agencies in last 5 years (Date Template)	View File

5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills

A. All of the above

File Description	Documents
Link to Institutional website	https://mahendratech.org/value_added_courses.php' value_added_courses
Any additional information	<u>View File</u>
Details of capability building and skills enhancement initiatives (Data Template)	<u>View File</u>

5.1.4 - Number of students benefitted by guidance for competitive examinations and caree counseling offered by the institution during the year

1502

5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

1502

File Description	Document
Any additional information	<u>View</u>

		<u>File</u>
ı	Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	<u>View</u> <u>File</u>

5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

A. All of the above

File Description	Documents
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View File
Upload any additional information	No File Uploaded
Details of student grievances including sexual harassment and ragging cases	No File Uploaded

### 5.2 - Student Progression

### 5.2.1 - Number of placement of outgoing students during the year

### 5.2.1.1 - Number of outgoing students placed during the year

327

File Description	Documents
Self-attested list of students placed	<u>View File</u>
Upload any additional information	<u>View File</u>
Details of student placement during the year (Data Template)	<u>View File</u>

### 5.2.2 - Number of students progressing to higher education during the year

### 5.2.2.1 - Number of outgoing student progression to higher education

11

File Description	Documents
Upload supporting data for student/alumni	<u>View File</u>
Any additional information	No File Uploaded
Details of student progression to higher education	<u>View File</u>

- 5.2.3 Number of students qualifying in state/national/ international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)
- 5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations) during the year

1

File Description	Documents
Upload supporting data for the same	<u>View File</u>
Any additional information	No File Uploaded
Number of students qualifying in state/ national/ international level examinations during the year (Data Template)	View File

- 5.3 Student Participation and Activities
- 5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the year
- 5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activitie at university/state/ national / international level (award for a team event should be counte as one) during the year.

23

File Description	Documents
e-copies of award letters and certificates	No File Uploaded
Any additional information	No File Uploaded
Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national/international level (During the year) (Data Template)	<u>View</u> File

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

Class Committee

Every class of the degree program have a class committee consisting of faculty and students to take a review on the students' performance, academic plan execution of every subject in a semester and steps for further enhancement of academic performance of the students.

IQAC

To develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.

#### Alumni Association

To make a mutually beneficial interaction between the Alumni and the present students of Manendra Institute of technology and also among the Alumni themselves.

#### NSS

To develop a sense of social and civic responsibility among themselves

To utilize their skills for the practical solution to individual and societal problems

#### Clubs:

To develop students administrative skills & to involve in social activities. There are so many activities conducted through clubs like tree plantation, dengue awareness camp, swachh bharat camp and covid awareness camp

### Aptitude club

To improve and bring out the aptitude skills of the students.

### Inspiring club

To encourage, motivate and equip the students to participate in various societal, environmental and communal welfare activities by their own an schemes proposed by the government

#### Make in India club

To promote making products concept among the students and inculcates cientific temper among them.

#### Arts and Fusion Club

To enhance theartofferings in the campus and to acquire further opportunities for the students to develop their artisticskills.

File Description	Documents
Paste link for additional information	https://mahendratech.org/club.php?club
Upload any additional information	<u>View File</u>

### 5.3.3 - Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)

### 5.3.3.1 - Number of sports and cultural events/competitions in which students of the Institution participated during the year

NIL

File Description	Documents
Report of the event	No File Uploaded
Upload any additional information	No File Uploaded
Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions (Data Template)	View File

### 5.4 - Alumni Engagement

### 5.4.1 - There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

MAHENDRA INSTITUTE OF TECHNOLOGY OLD STUDENT ASSOCIATION (MITOSA)

The college has an alumni association named MITOSA that stands for Mahendra Institute of Technology Old Students Association. The association had been running unregistered till 2017. Efforts are being taken to register the association and registered in the year of 2018 with register number is 140/2018.

- To improve interaction among the Alumni Members and to the Institut by way of organizing reunions, meets and conclaves
- To improve the expertise by the way of providing resource person an the experts through Alumni members.
- To provide forums for the Alumni members to exhibit their products and expertise, further, give opportunity to promote their business and professional life.

The alumni association of college conducts the alumni meet annually. Meetings of the association were organized during last five years at various places. Alumni also give the inputs regarding latest tools/technologies to the current batch students in the form of lectures.

Alumni of the college bring students up to date with various job opportunities and corporate requirements. The alumni of the college who have qualified and the competitive examinations, interact with students appearing for competitive examination through on-campus lectures or by online commitment to guide them.

Our primitive alumni

- 1. S. Senthil, Assistant Engineer/TNEB, Kangayam South section
- Hari shankaran N, Programmer Analyst, EXCELACOM TECHNOLOGY.

- 3. Ragav chandran N, Senior Software Engineer, FIS GLOBAL BUSINESS SOLUTIONS IND PVT LTD
- 4. Ashokkumar T, Constable/GD in Central Industrial Security Force.
- 5. Suresh M, General Service, Indian Navy

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

### 5.4.2 - Alumni contribution during the year (INR in Lakhs)

E. <1Lakhs

File Description	Documents
Upload any additional information	<u>View File</u>

### GOVERNANCE, LEADERSHIP AND MANAGEMENT

### 6.1 - Institutional Vision and Leadership

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

#### **VISION**

To become a premier institution by harnessing human potential in engineering, technology and research and develop competent engineers with strong concern for ethics and social values.

#### **MISSION**

- To impart quality engineering education by leveraging on state-ofthe art facilities, resources and eminent faculty members.
- To create a congenial atmosphere for the holistic development of th students.
- To inculcate in students strong values, sense of ethics and vision that will prepare them to lead lives of personal probity, integrity and civic responsibility.
- To foster and strengthen the research expertise in engineering amongst the students and faculty for the betterment of the society.

The nature of governance, perspective plans in tune with the vision and mission of the Institution

• The management of the institute is assisted by Principal, Academic Coordinator and Heads of the Departments, faculty and staff members to enhance the quality of the institute.

- An Academic committee comprising Principal, academic coordinator an Department HoDs meet before the start of the new semester to prepar the academic calendar.
- Semester wise Academic Calendar is prepared by the HODs after discussions with the Principal. The academic plan includes arrangin industrial visits for students, conferences/symposium, workshops, seminars, Guest Lectures, Project Expo, Placement Training and social activities.
- Meeting is conducted periodically by Principal with the HODs as wel as with the faculty to assess the needs of the department.
- HODs conduct faculty meetings regularly to collect feedbacks for smooth functioning of the department.

File Description	Documents
Paste link for additional information	https://mahendratech.org/vision.php
Upload any additional information	<u>View File</u>

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

The case study for the preparation of Academic Planner

Mahendra Institute of Technology functions with an efficient decentralized administration that has an absolute transparency in all the processes.

### Decentralization in working

- Academic related powers are delegated to the academic Heads and Academic Coordinator by the Principal.
- All the departments of the Institution function under the direct supervision of Principal. Day-to-day academic activities of the departments are taken care of by the HoDs.
- Under direct supervision of Principal, Administrative office, examination section, library and all the UG and PG departments are functioning.
- Time to time Principal conducts meeting with the concerned HoDs/ in charges to discuss various issues and resolutions passed for furthe action.
- Similarly, the outcomes of Principal meeting are passed on to individual faculty / staff for implementation.
- Senior faculty members are allotted to co-ordinate various academic activities, faculty development programmes and student enrichment courses.
- Placement activities are delegated to all department placement coordinators through training and placement cell.
- Administration work is delegated to the administrative officer.

- Co-Curricular and extra-curricular activities are delegated to the faculty in-charges of various departments.
- o Club activities are delegated to the faculty coordinators.

The list of various committees to decentralize the academic and administrative activities is given below.

- Examination Cell
- Anti-Ragging Committee
- Women EmpowermentCell
- Counselling Cell
- Grievance Redressal Cell
- Library Committee
- Internal Quality Assurance Cell (IQAC)
- Discipline Committee
- Time Table Committee
- Alumni Association
- Professional bodies and associations
- National Social service
- Website Management Committee

File Description	Documents
Paste link for additional information	http://www.mahendratech.org/cell.php
Upload any additional information	<u>View File</u>

### 6.2 - Strategy Development and Deployment

### 6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

The Institution has plans for the development of Statergic/perspective plan

- To Improve the Employable skills of the students along with encouraging the Co-curricular / extracurricular activities.
- To motivate faculty members to upgrade the Teaching Learning process.
- To get funds from various funding agencies like ICMR, DRDO, DST, CSIR and AICTE to organise Conferences/Seminars/Workshops/FDP/ MODROBS etc.
- To encourage the faculty members to publish papers in reputed International/National Journals with good impact factor.
- To motivate all the Faculty members to register Ph.D.
- To get National Board of Accreditation for the eligible departments
- To develop more number of smart class rooms and Video Theatres.
- To intensify the activities of Industry Institute Interaction cell for undertaking more industry oriented projects.

- To offer more Value added certification courses in addition to the existing courses and provide coaching for competitive exams.
- To offer more consultancy & Testing services.
- To setup industry powered /sponsored laboratories.
- To setup Technology Business Incubation centre.

File Description	Documents
Strategic Plan and deployment documents on the website	No File Uploaded
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

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

Mahendra Institute of Technology is functioning with a governing body and an active administrative structure.

#### GOVERNING BODY

Mahendra Institute of Technology was established in the year 2007 by Thirumigu M. G. Bharath Kumar, a renowned educationist with an objectiv of imparting high standard of education to rural children. The Chairman of the institution is ably supported by the Governing Body in introducing matters of Policy, Planning and Development of the Institution.

### Functions of the Governing Body:

- 1. Prescribe guidelines for student's admission in line with the reservation policy of the state government/national policy.
- 2. Introduction of new programs.
- 3. Increase / decrease in intake of the existing programs.
- 4. Discussion on students' academic performance and improvement.
- 5. Strategy for the Students' placements.
- 6. Institution has complete administrative autonomy and has the freedo of appointing the administrative staff and teaching faculty.
- 7. Empowering the students with awards, stipends, scholarships, medals prizes and so on.

#### HUMAN RESOURCE PLANNING

- The Principal assess in the month of April every year, the staff requirement for the subsequent academic year.
- He obtains the staff requirement lists from all the Heads of department and arrives at the number of faculty members, Lab assistants and administrative staff required with the following quidelines in mind.

- The teacher student ratio shall be 1:15 and for this purpose the Professor shall also be included in counting the number of teachers
- He appoints a selection committee for recruitment in each discipline, composed of the Principal, HOD, and the Department's Advisors/Experts from the neighbouring institutions.

File Description	Documents
Paste link for additional information	https://mahendratech.org/download/6_2_2.pdf
Link to Organogram of the institution webpage	https://mahendratech.org/download/6_2_2_Org.pd:
Upload any additional information	<u>View File</u>

# 6.2.3 - Implementation of e-governance in areas of operation Administration Finance and Accounts Student Admission and Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning)Document	<u>View File</u>
Screen shots of user inter faces	<u>View File</u>
Any additional information	No File Uploaded
Details of implementation of e-governance in areas of operation, Administration etc(Data Template)	View File

### 6.3 - Faculty Empowerment Strategies

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

Welfare Schemes for Teaching Staff

- 1. Free Medical emergency transportation
- 2. Concessional transport facilities
- 3. Waiver of fees for teachers' children in Mahendra Schools.
- 4. Medical leave and Maternity leave.
- 5. Supporting for education of the children of the teachers in the group institutions.
- 6. Sanction of one week leave for marriage.
- 7. Sponsorship for attending conference, workshops and FDPs.
- 8. Incentive for publication of papers / research articles.
- 9. Reward for producing University Ranks.
- 10. Cash awards for academic excellence / 100% pass.
- 11. Subsidised canteen fares for teachers.
- 12. Group Insurance.

- 13. Motivation for organizing guest lectures, attending orientation, refresher programmes & short term courses.
- 14. Causal leave/ earned leave / Compensatory leave to all eligible staff.
- 15. Winter and summer vacation leave to all teaching staff.
- 16. Faculty members opting to stay in hostel are given accommodation with fee concession.
- 17. Motivation to register for Ph.D taking necessary steps to apply for research proposals, getting financial grants, funds & patent etc.
- 18. Encouragement to enrol as members of various professional bodies an societies with financial support.
- 19. Research facilities to the faculty to present their research work a conferences (national & international) and share their technical expertise as resource persons

### Welfare Schemes for Non-Teaching Staff

- 1. Employees Provident Fund (EPF) scheme right from the year of joinin & ESI facilities for medical treatments.
- 2. Free Medical emergency transportation
- 3. Concessional transport facilities.
- 4. Waiver of fees for teachers' children in Mahendra Matric Higher Secondary School.
- 5. Medical leave and Maternity leave.
- 6. Sanction of one week leave for marriage.
- 7. Group Insurance.
- 8. Winter and summer vacation leave.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

### 6.3.2 - Number of teachers provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies during the year

### 6.3.2.1 - Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the year

24

File Description	Document
Upload any additional information	<u>View</u> <u>File</u>
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	<u>View</u> File

### 6.3.3 - Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year

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

16

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	No File Uploaded
Reports of Academic Staff College or similar centers	No File Uploaded
Upload any additional information	View File
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	<u>View</u> File

## 6.3.4 - Number of teachers undergoing online/face-to-face Faculty development Programmes (FDP) during the year (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)

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

128

File Description	Documents
IQAC report summary	View File
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
Upload any additional information	<u>View File</u>
Details of teachers attending professional development programmes during the year (Data Template)	View File

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

Faculty Performance Appraisal System (FPAS) for Teaching Staff

The performance appraisal system has the following components:

- Teaching performance
- Pass percentage produced in the University Examinations
- Feedback from students and HoD / Principal
- Research Publications in journals
- Conference Presentations / Publications
- Workshop/Seminar Participation in Mahendra Group Institutions
- Workshop/Seminar Participation in other Institutions
- Workshop/Seminar organized

- Guest Lecture delivered in the Institution (Other Dept.)
- Guest Lecture delivered in Mahendra Group Institutions
- Guest Lecture delivered in other Institutions
- Interaction with professors in NIT/IIT/Anna University/Reputed Institution
- Participation in FDPs /SDP organized in other Institutions
- Preparation of Learning materials on important topics
- Proposals submitted for grants from funding agencies
- Visits to Industries for collaboration
- Arranging Industrial Visits / internships to students

Major decisions based on performance appraisal reports by the managemen

- The faculty appraisal forms are reviewed by the respective Heads of the Departments and the Principal.
- The Principal conveys the performance of the faculty to the management based on the findings, measures are taken.
- The faculty members are given promotion regularly based on their marks secured in their appraisal form.
- If the performance of the faculty is below par, they are counselled by the HoD/the Principal to show better performance in the subsequent semester.

Performance appraisal system for non-teaching staff

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

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

### 6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

Yes, the Institution has a system for Internal and external audit.

The Governing Body of the Institution consisting of university and AICT nominees, management representatives, industry and academic members to preview financial year budget proposals including Income & Expenditure (both recurring and non-recurring) details. The proposals are made on different heads such as laboratory equipment, library expenses, salary payments, building infrastructure and other maintenance expenses.

#### Internal Audit and External Audit

An effective mechanism is followed by the institution for auditing all the accounts. The institution has appointed a full time Charted Accountant Mr. Ramesh designated as Finance Officer who verifies and checks bills and vouchers, passes the bills, manages the fund after the discussion with the management. The institution has both internal and external audit mechanisms.

External auditor is appointed by the parent trustee, who executes the statutory audit. The last audit was prepared in the month of May 2021. No major irregularities are found in the audit. External Audit Committe verifies the income and expenditure details of the Institution as per the balance sheet. Then all the statements are forwarded to External Auditor.

There is a statutory financial audit by the External Audit Agency, who is a qualified Chartered Accountant, recognized by ICAI. External Statutory Audit is conducted without the institution's interference.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	<u>View File</u>

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

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

NIL

File Description	Documents
Annual statements of accounts	No File Uploaded
Any additional information	No File Uploaded
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the year (Data Template)	

### 6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

Fund Mobilization:

#### Admission fee

Admissions of students are made through Anna University Counseling (TNEA) under Government Quota (65%) and Management seats are admitted through Consortium of Self Financing Professional Colleges in Tamil Nad (35%) with the collection of fees as prescribed by the Tamil Nadu Government higher education regulations.

Grants from Government Organizations and Non Government Organizations

#### Trust Contributions

Mahendra Institute of Technology is functioning under the Mahendra Educational Trust which contribute fund to develop construction of buildings, Procurement of equipments, furniture's and consumables such as books, chemicals and glassware's. Scholarship is also provided for the meritorious, poor and needy students by the trust.

### Availing Loan

Term and hire purchase loans from banks with reduced rate of interest are availed in order to maintain the Debt Equity Ratios, DSCR and liquidity.

#### Optimal Utilization

Construction of Buildings and Infrastructure facilities

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

### Recurring Expenses

Fees collected from students are utilized for the salary to Teaching faculty and non teaching staff, academic activities and loan due payment.

Research and project activities

In order to cover the research excellence among academicians, many research projects are encouraged for students and faculty to enhance th recent socio-economic strategies.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

### 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

S. No.

Assessment Criteria

Frequency

Conduct Mechanism

& Action Plan

Implementation & Effectiveness

1.

Course file and lab manual monitoring

Once in a Semester

Verification of Course files as per Format

Verification of lab manuals with additional experiments. (open ended, advanced etc)

Submission of report to the IQAC in the prescribed format.

Verification of reports by IQAC & providing feedbacks for further improvement.

2

Project monitoring

As per Academic Schedule

Verification of All Project Titles and Batch of Students.

Verification of all External Projects and their company, progress repor

Monitoring Student- Guide Contact hours.

Submission of report to the Academic Coordinator in the prescribed format.

5. Encourage and help students to convert their project into quality technical articles

Compile and catalogue student's research articles.

Submission of report to the IQAC in the prescribed format.

Verification of reports by IQAC & providing feedbacks for further improvement.

File Description	Documents
Paste link for additional information	http://mahendratech.org/download/6.5.1.pdf
Upload any additional information	<u>View File</u>

6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

The main objective of IQAC is to ensure quality assurance of academics and administrative works. It functions for the growth of faculty and students and provides guidelines periodically.

Following innovative processes adopted by the institution in Teaching and Learning:

- 1. Promoting the usage of ICT.
- 2. Implementing Outcome based education
- 3. Mapping course outcomes / instructional objectives and program outcomes.
- 4. Guest lectures on advanced topics by Eminent Academicians and Industry experts.
- 5. Conducting National seminars and workshops for students
- 6. Practice of emerging technologies through Mini projects and Term Papers.

Besides regular classroom learning, added innovative teaching methods like

- Field trips
- Industrial visits
- Internships and Hospital Trainings are undertaken.

IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

- IQAC organizes regular academic audits to ensure effective implementation of teaching learning process and maintenance of course files.
- Monitoring of course files, lecture Schedules, course plans by random sampling.
- Verification of Internal test analysis, question papers.
- Arrangement of special classes for weak students during evening hours.
- Identifying the new processes/delivery method and recommending the same for improving the quality.
- Analysing the deviations from the benchmarks and reporting.

• Action Taken on Feedback from the stakeholders (students, Teachers, alumni, Employers and parents).

File Description	Documents
Paste link for additional information	https://mahendratech.org/download/6_5_2.pdf
Upload any additional information	<u>View File</u>

- 6.5.3 Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)
- B. Any 3 of the above

· ·	, , , ,	
File Description	Documents	
Paste web link of Annual reports of Institution	https://mahendrat	ech.org/download/Annual_Report_2020- 2021.pdf
Upload e-copies of the accreditations and certifications		<u>View File</u>
Upload any additional information		View File
Upload details of Quality assurance initiatives of the institution (Data Template)		<u>View File</u>

### INSTITUTIONAL VALUES AND BEST PRACTICES

### 7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Women Empowerment Cell (WEC) is reularly organizingWebinars on "Women Day& Women Power" for the benefits of female faculty members & students community. This program grasped very good responses from people of various domains.

Content of the programs covered was

★ Life Audit ★ Resilience ★ Personal Productivity ★ Positive way forward ★ Work -life balance ★ How to prioritize the work ★ Emotional stability

### 1. Safety and Security

- In our college the Security System consisting of more than 20 personnel safe guard the campus and hostels and medical assistance for girl students is given by a Doctor available in our campus .
- CCTV cameras are Installed at various points for monitoring Purposes.

### 2. Counselling

- Every faculty is allotted 15-20 students for effective mentoring system.
- Empower women in academics through educational, awareness training programmes.
- Strengthen them towards leadership and self- motivation.
- Make them confident and competent individuals in career and life.

#### 3. Common Rooms

- For the convenient of girl students Rest rooms are available at every floor.
- Has well-furnished separate Hostels for Boys and Girls.

File Description	Documents
Annual gender sensitization action plan	https://mahendratech.org/download/7_1_1_ANSEN.pd:
Specific facilities provided for women in terms of:a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://mahendratech.org/download/7_1_1.pdf

# 7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy Biogas plant Wheeling to the Grid Sensorbased energy conservation Use of LED bulbs/power efficient equipment

C. Any 2 of the above

File Description	Documents
Geo tagged Photographs	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste

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

### Solid waste management

Solid waste collected from canteen, kitchen and vegetable wastes are segregated in a dust bin. The collected wastes are transported and emptied in a pit and covered by soil and left as such for three months. After three months this solid waste is used as a manure to strengthen the greeneries grown in our premises. Arrangements for collecting food waste from canteen are done suitably.

### Liquid waste management

To protect the environment from the hazardous waste water, the sewage treatment system is in practice. The liquid waste is collected safely and conveyed to treatment plant safely to ensure that the environment i free from health related hazards. The treatment plant has a treatment capacity of about 1 lakh litre/day. The treatment plant from Wock-Olive India Ltd... is installed. The waste water from our hostels, canteen an various place of college is collected and treated in the treatment plant. The treated waste water is naturally and safely discharged to irrigate the garden and lawn.

#### E-waste management

In our Institution almost all computers, printers and electronic device are in working conditions and no scraps are generated. The toners in th printers are refilled rather than throwing it out after it gets over. Therefore no e-wastes are generated usually. If they are generated in future, it is planned to sell them to a e-waste recycle company

File Description	Documents
Relevant documents like agreements / MoUs with Government and other approved agencies	No File Uploaded
Geo tagged photographs of the facilities	View File

# 7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

A. Any 4 or all of the above

File Description	Documents	
Geo tagged photographs / videos of the facilities	<u>View File</u>	
Any other relevant information	No File Uploaded	

### 7.1.5 - Green campus initiatives include

- 7.1.5.1 The institutional initiatives for greening the campus are as follows:
  - 1. Restricted entry of automobiles
  - 2. Use of bicycles/ Battery-powered vehicles
  - 3. Pedestrian-friendly pathways
  - 4. Ban on use of plastic
  - 5. Landscaping

A. Any 4 or All of the above
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File Description	Documents
Geo tagged photos / videos of the facilities	<u>View File</u>
Various policy documents / decisions circulated for implementation	<u>View File</u>
Any other relevant documents	No File Uploaded

### 7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

7.1.6.1 - The institutional environment and energy initiatives are confirmed through the following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities

A. Any 4 or all of the above

File Description	Documents	
Reports on environment and energy audits submitted by the auditing agency	<u>View File</u>	
Certification by the auditing agency	<u>View File</u>	
Certificates of the awards received	No File Uploaded	
Any other relevant information	<u>View File</u>	

7.1.7 - The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screenreading software, mechanized equipment 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

B. Any 3 of the above

File Description	Documents
Geo tagged photographs / videos of the facilities View	
Policy documents and information brochures on the support to be provided	No File Uploaded
Details of the Software procured for providing the assistance	No File Uploaded
Any other relevant information	No File Uploaded

## 7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

To educate students about our country's unity in diversity to respect the different religion, language and culture. To create an environment that indulges students to feel that college is the second home and all faculties like a family member. Greeting and wishing each other at different festivals and invite them to have a feast to get introduced with ones culture to have amicable relations and to maintain the religious, social and communal harmony. To build a nation of youth who are noble in their attitude and morally responsible, the college organizes and conductsseveral activities to build and promote an environment for ethical, cultural, and spiritual values among the students and staff. To develop the emotional and religious feelings among the students and the faculty, commemorative days are being celebrated on the campus with the initiative and support of the management for not only recreation and amusement but also to generate the feeling of oneness and social harmony. The college and its teacher and staff jointly celebrate the cultural and regional festivals, like Pongal, Mahendra program etc. activities are performed in the campus. The student activities are utsav day, Teacher's day, Induction program, Women's day, Yoga day orientation and farewell generally designed to allow students to get more involved and offer them opportunities in leadership, social responsibility, citizenship, volunteerism, and student employment. The college is also taken initiative to crate many students clubs to involve the students in such activities.

File Description	
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	
Any other relevant information	<u>View</u> <u>File</u>

### 7.1.9 - Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

Yes, The institution offers a course on human values and professional ethics OBJECTIVES: To enable the students to create awareness on Engineering Ethics and Human Values, to instill Moral and Social Values and Loyalty and to appreciate the rights of others. HUMAN VALUES Morals values and Ethics - Integrity - Work ethic - Service learning - Civic virtue - Respect for others - Living peacefully - Caring - Sharing -

Honesty - Courage - Valuing time - Cooperation - Commitment - Empathy -Self confidence - Character - Spirituality ENGINEERING ETHICS Senses of 'Engineering Ethics' - Variety of moral issues - Types of inquiry -Moral dilemmas - Moral Autonomy - Kohlberg's theory - Gilligan's theory - Consensus and Controversy - Models of professional roles - Theories about right action - Self-interest - Customs and Religion - Uses of Ethical Theories ENGINEERING AS SOCIAL EXPERIMENTATION Engineering as Experimentation - Engineers as responsible Experimenters - Codes of Ethics - A Balanced Outlook on Law. SAFETY, RESPONSIBILITIES AND RIGHTS Safety and Risk - Assessment of Safety and Risk - Risk Benefit Analysis and Reducing Risk - Respect for Authority - Collective Bargaining -Confidentiality - Conflicts of Interest - Occupational Crime -Professional Rights - Employee Rights - Intellectual Property Rights (IPR) GLOBAL ISSUES Multinational Corporations - Environmental Ethics -Computer Ethics - Weapons Development- Engineers as Managers -Consulting Engineers - Engineers as Expert Witnesses and Advisors -Moral Leadership

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	Nil
Any other relevant information	https://mahendratech.org/download/7_1_9.pd

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized

A. All of the above

File Description	Documents
Code of ethics policy document	<u>View</u> <u>File</u>
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	
Any other relevant information	No File Uploaded

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

National festivals/ death anniversaries are conducted management with full of passion. they students are join together thorough online with improve society of nation and people cultures like religion program and Indian great personalities life stories create the young minds through the programs conducted on the these days. The reason for celebrate the festivals is to the student to less religiously centred and come to honour other religions, and festival provide the enjoyment, recreation and offer the time bond with family members who never seen their family for that time. This celebration gives right platform to the student to understand about the civilization and improve the service mind. We should strongly believe that science day celebration create engineering ethics.

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	No File Uploaded
Geo tagged photographs of some of the events	No File Uploaded
Any other relevant information	View File

### 7.2 - Best Practices

- 7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.
- 7.2.1.1 TITLE: MAHENDRA OUTREACH ENRICHMENT AND SOCIAL RESPONSIBILITIES
- 7.2.1.2 OBJECTIVES: To assist students to develop their social responsibilities and to become good citizens for the welfare of the society.
- 7.2.1.3 THE CONTEXT: Mahendra Institute energetically participates 26 clubs includes International club, Scenario club, Inspiring club, Talen exhibiting club and traditional club which carry out several activities for the betterment of students as well as faculty members. 7.2.1.4 THE PRACTICE: The College provides seed balls for club members to intermingle with local peoples to expand the greenery in and around the locality. They create awareness among the people to grow tress and remove the unwanted Karuvelam (Prosopis juliflora) trees which is an ecological threat.
- SOFT SKILL TRAINING: Training in variety of topics related to Personal Enhancement, Public speaking, Interpersonal skills, Soft skills, placement skills for the betterment of the students.
- 7.2.1.5 EVIDENCE OF SUCCESS: The students clearly understand the ground reality of the problems in the society. Entrepreneur and other professionals from MIT are the best living examples for the evidence of this success.

7.2.2.1 TITLE: MENTOR SYSTEM FOR THE STUDENTS: Under graduate engineering programme students frequently required direction and counselling from the faculties to refresh their intellect. Each faculty plays as a mentor for a group of 10 to 20 students.

File Description	Documents
Best practices in the Institutional website	https://mahendratech.org/best_practices.php? best_practices
Any other relevant information	https://mahendratech.org/download/7_2_1.pdf

### 7.3 - Institutional Distinctiveness

### 7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

Placement Drive The Placement Cell of MIT plays a vital role by being a platform for Corporate and young graduates to interact for mutual benefits. Center of Excellence for Industry Innovation Practices (CEIIP Hands on Training: This course is the core strength of MIT placement cell, which was established to promote Training through which the students are trained in the industries directly. Objective: It will be highly interactive during hands on training session which covers the entire 360° view on machine tool training aspects. Resource Person: These hands-on training will be conducted by the Senior Expert Hans-Joachim Schrodt, who has more than 30 years of professional experience as a teacher. He has a comprehensive knowledge of Mechatronics and related subjects. Focus Areas and Infrastructure requirements: . Space for Basic Mechanics, · Basic Machining, labs for Metrology · CNC Machines · Robotics · Pneumatic/ Hydraulic Machineries · Automatics · Welding Equipments · Specifications of the required equipment like tools, checking tools, machinery etc In-plant training: In-plant training creates the opportunity for the students to explore their skil & job offer after graduation. The Institute insists the students to make use of the offer for In-plant training in order to enrich their practical knowledge. Industry - Institute Partnership: MIT has signed MoUs (Memorandum of Understanding) with various organizations in the Engineering and Technology sectors through which summer internships and 6 months project internships opportunities are offered to the students.

File Description	Documents
Appropriate web in the Institutional website	<u>View File</u>
Any other relevant information	<u>View File</u>

### 7.3.2 - Plan of action for the next academic year

- To include Universal Human Values and Constitution of India for all the students of all the branches.
- To arrange visits to foreign universities and industries for technical collaborations.

- To involve more alumni for students mentoring and placement oriente training.
- To increase number of patent filing, publishing and grant.
- To increase the number of consultancy service/projects.

https://assessmentonline.naac.gov.in/public/index.php/hei/generateAqar\_HTML\_hei/MTQ5NDE=