



YEARLY STATUS REPORT - 2020-2021

Part A	
Data of the Institution	
1.Name of the Institution	MAHENDRA COLLEGE OF ENGINEERING
• Name of the Head of the institution	Dr Malmurugan N
• Designation	PRINCIPAL
• Does the institution function from its own campus?	Yes
• Phone no./Alternate phone no.	04272482884
• Mobile no	9443695412
• Registered e-mail	principal@mahendracollege.com
• Alternate e-mail	dean.academic@mahendracollege.com
• Address	Mahendra College of Engineering, Attur Main Road, Minnampalli
• City/Town	Salem
• State/UT	Tamil Nadu
• Pin Code	636106
2.Institutional status	
• Affiliated /Constituent	Affiliated
• Type of Institution	Co-education
• Location	Rural

• Financial Status	Self-financing				
• Name of the Affiliating University	Anna University, Chennai				
• Name of the IQAC Coordinator	Dr.N.Mohanasundararaju				
• Phone No.	04272482884				
• Alternate phone No.	04272467292				
• Mobile	9443695412				
• IQAC e-mail address	iqac@mahendracollege.com				
• Alternate Email address	dean.academic@mahendracollege.com				
3.Website address (Web link of the AQAR (Previous Academic Year))	https://www.mahendracollege.com/AQAR/AQAR%202019-20.pdf				
4.Whether Academic Calendar prepared during the year?	Yes				
• if yes, whether it is uploaded in the Institutional website Web link:	https://www.mahendracollege.com/downloads/Academic-Calendar_2020-2021.pdf				
5.Accreditation Details					
Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	B++	2.99	2019	08/02/2019	07/02/2024
6.Date of Establishment of IQAC			05/02/2016		
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			View File		

9.No. of IQAC meetings held during the year	4	
<ul style="list-style-type: none"> • Were the minutes of IQAC meeting(s) and compliance to the decisions have been uploaded on the institutional website? 	Yes	
<ul style="list-style-type: none"> • If No, please upload the minutes of the meeting(s) and Action Taken Report 	No File Uploaded	
10.Whether IQAC received funding from any of the funding agency to support its activities during the year?	No	
<ul style="list-style-type: none"> • If yes, mention the amount 		
11.Significant contributions made by IQAC during the current year (maximum five bullets)		
<p>* Students are motivated to undergo internship and also participate in Smart India Hackathon competitions. * Faculty members are motivated to attend online faculty development programmes, training programmes and workshops in reputed organizations and also to organize webinars during the lock-down periods. * Enhancement of online mode of Teaching Learning process for improved learning outcomes * Participation in NIRF and ARIIA ranking and the Institution received the certificate of recognition in the band of "promising Category", from ARIIA . • Students are motivated to register for more online courses in the emerging areas during the lock-down periods.</p>		
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
To achieve University Ranks at least within 50 in the ensuing Academic Year.	Continuous Efforts are in place for achieving this goal
To include Universal Human Values in the content beyond syllabus for all the students of all the branches as directed by AICTE and Anna University	Faculty members participated in AICTE FDPs and inculcate Universal Human values in their lectures.
To commission a community Radio with an indoor studio and broadcasting facilities	Infrastructure creation is completed. Expected to launch the broadcasting soon.
To get permission for a new self-financed NCC unit in the campus	Achieved. New NCC unit is approved on 30.03.2021
To get patent grants in the emerging and cutting edge technologies by utilizing the talents of young minds and research aspirants	Achieved. Four Patents were published.
13. Whether the AQAR was placed before statutory body?	Yes
<ul style="list-style-type: none"> Name of the statutory body 	
Name	Date of meeting(s)
Governing Council	12/03/2021
14. Whether institutional data submitted to AISHE	
Year	Date of Submission
2020-21	26/02/2022

Extended Profile

1. Programme

1.1 281

Number of courses offered by the institution across all programs

during the year

File Description	Documents
Data Template	View File

2.Student

2.1 1231

Number of students during the year

File Description	Documents
Institutional Data in Prescribed Format	View File

2.2 350

Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year

File Description	Documents
Data Template	View File

2.3 339

Number of outgoing/ final year students during the year

File Description	Documents
Data Template	View File

3.Academic

3.1 219

Number of full time teachers during the year

File Description	Documents
Data Template	View File

3.2 219

Number of sanctioned posts during the year

Extended Profile	
1.Programme	
1.1 Number of courses offered by the institution across all programs during the year	281
File Description	Documents
Data Template	View File
2.Student	
2.1 Number of students during the year	1231
File Description	Documents
Institutional Data in Prescribed Format	View File
2.2 Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year	350
File Description	Documents
Data Template	View File
2.3 Number of outgoing/ final year students during the year	339
File Description	Documents
Data Template	View File
3.Academic	
3.1 Number of full time teachers during the year	219
File Description	Documents
Data Template	View File

3.2	219
Number of sanctioned posts during the year	
File Description	Documents
Data Template	View File
4.Institution	
4.1	56
Total number of Classrooms and Seminar halls	
4.2	466.65459
Total expenditure excluding salary during the year (INR in lakhs)	
4.3	646
Total number of computers on campus for academic purposes	

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

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

- Prior planning of Academic activities and preparation of institute academic calendar in alignment with the University Academic schedule.
- Formulation of objective driven teaching plans for all courses at the beginning of the semester.
- Updating the library facilities and e-journals in line with Curriculum and syllabus changes of the University for the Regulations in force. Course allocation to faculty based on their specialization, Experience and faculty's interests.
- The Course file prepared by the faculty includes Vision & Mission statements of the Institute and Department,

Programme Educational Objectives (PEOs) Statements and mapping with PO and CO, Time table, Course Syllabus, Course Data Sheet, Lesson plan, Course materials, Lecture notes, Content beyond syllabus, Assignments topics, Tutorial Problems.

- The Record of class work includes the Topic covered, Mode of delivery, date & period, details of students, percentage of attendance, Assignments Marks, Internal Assessment Marks, Slow learners and Students Counselling Particulars.
- Systematic examination process, standard question papers as per Bloom's Taxonomy, proper and prompt evaluation, "Outcome based approach" is adopted for the effective delivery of the curriculum.
- Online learning became much more widespread with the outbreak of COVID-19 and college closures.
- To adapt to a new way of teaching during the Covid19 crisis we have introduced on line classes with a view of maintaining uninterrupted flow of knowledge.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	http://mahendracollege.com/downloads/2.6.1.pdf

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

Each semester in an academic year commences on the date specified by the Anna University. The university publishes in advance, the academic schedule containing plans for curricular activities based on the available working days as per University norms. It clearly specifies the dates for entering the students' attendance, test marks etc. There is a faculty member responsible for preparing the academic calendar for the Institution. He/She prepares Academic calendar of the Institution in line with the University Academic Schedule.

Approval for the same is given by heads of departments and the Principal after effecting minor changes, if required. The academic calendar is then circulated to all faculty members before the commencement of the semester. Academic calendar of the Institution includes schedule of curricular activities, assessment dates, technical events, class tests, submission of mark lists, placement

Training slots, list of holidays and extracurricular activities. Students are then informed about time table and academic calendar. The detailed lesson plan/teaching methodology as suited to syllabus is prepared by each faculty before the commencement of the semester.

Monitoring of implementation of lesson plan is done by Heads of the departments and corrective actions are suggested wherever required. Due to the outbreak of COVID-19 all the regular classes, continuous Internal Assessment tests/Quiz/Assignments are conducted and evaluated through online mode (Google class room) as per the Academic schedule provided.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	https://www.mahendracollege.com/downloads/Academic-Calendar-2020-2021.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 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

A. All of the above

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

13

File Description	Documents
Any additional information	View File
Minutes of relevant Academic Council/ BOS meetings	No File Uploaded
Institutional data in prescribed format (Data Template)	View File

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)

24

File Description	Documents
Any additional information	View File
Brochure or any other document relating to Add on /Certificate programs	View File
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

1150

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

- Equal opportunities are given to both the genders in terms of usage of learning resources, library facilities & infrastructural facilities, to participate in various technical events such as workshops, seminars, symposia and

technical group events

- Assessment in quizzes, internal exams, practical classes are impartial in relevance to gender, social status and calibre.
- Students have a compulsory course on Environmental Science and Engineering in all programs. Environmental based practical learning is implemented in some programs as content beyond syllabus.
- Professional Ethics and Human values was an Elective course for all programs in the previous regulation of the University. Now it has been made Core course in some of the programs. This course is offered to the students of all programs either as Core or as an Elective.
- An induction programme has been introduced by AICTE into the curriculum from the Academic year 2021-2022 for the newly joined first year students of all the programmes and the Universal Human Values is the anchoring activity of the Induction Programme. It gets the students of both gender to explore oneself and allows one to experience the joy of learning, stand up to peer pressure, take decisions with courage, be aware of relationships with colleagues and supporting stay in the hostel and department, be sensitive to others, etc.

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

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

112

File Description	Documents
Any additional information	View File
Programme / Curriculum/ Syllabus of the courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	No File Uploaded
MoU's with relevant organizations for these courses, if any	View File
Institutional Data in Prescribed Format	View File

1.3.3 - Number of students undertaking project work/field work/ internships

727

File Description	Documents
Any additional information	View File
List of programmes and number of students undertaking project work/field work/ /internships (Data Template)	View File

1.4 - Feedback System

1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders
Students
Teachers
Employers
Alumni

A. All of the above

File Description	Documents
URL for stakeholder feedback report	http://mahendracollege.com/downloads/1.4.1-link.pdf
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View File
Any additional information	View File

1.4.2 - Feedback process of the Institution may be classified as follows

A. Feedback collected, analyzed and action taken and feedback available on website

File Description	Documents
Upload any additional information	View File
URL for feedback report	http://mahendracollege.com/downloads/1.4.1-link.pdf

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment Number Number of students admitted during the year

2.1.1.1 - Number of students admitted during the year

293

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

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

293

File Description	Documents
Any additional information	View File
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

Institution identifies and responds to special learning needs of both advanced and slow learners:

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

Assistance provided for advanced learners:

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

- Encouraging the students to be active members or office bearers of various professional bodies and branch associations.
- To take up industry based projects.
- To organize various events relating to the emerging areas.
- Assigning seminar topics.
- Topics on content beyond syllabus taught to enhance their knowledge.

Assistance provided for slow learners:

Institution encourages effective mentoring system. From the academic record of all the students, slow learners are identified. If the students are slow in their learning process, the mentor who is also the guide, identify the nature of their problems and motivate them to attain their academic goals.

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

Mentors develop a rapport with the concerned students through personal interactions.

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

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

Number of Students	Number of Teachers
1231	219

File Description	Documents
Any additional information	View File

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

Following structures and systems are available for faculty members and students to implement student centric learning to enhance the learning experience in the campus:

- Activity based learning (ABL)
- Project based learning (PBL)
- Mini projects
- Major projects
- Survey camps, etc.

Student's seminars, Group Discussions and hands on training make the students to involve in the learning process

Library, Internet facility and language lab contribute more for the activity based learning

In-plant Training, Industrial visits & Internships also make the students to learn the concept practically

Assignments are given for self learning, which involve the making of working models to explain the working concepts

Students' participative learning is encouraged during the regular class hours. Following teaching techniques are regularly followed by faculty members to encourage participative learning.

- Exhibition and demonstrations of working models
- Group Discussions
- Role play
- Debate
- Seminars

Soft skills training sessions are also conducted by external

experts, which include Problem solving techniques. Students are also trained by the experts, in improving the presentation and communication skills.

File Description	Documents
Upload any additional information	View File
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

Faculty members are combining technology with traditional mode of instruction to engage students in long term learning. Institution uses Information and Communication Technology (ICT) in education to support, enhance, and optimize the delivery of education.

Following ICT tools are used by the Faculty members.

1. Projectors- 37projectors are available in different classrooms / labs
2. Desktop and Laptops- Arranged at Computer Lab and Faculty cabins all over the campus.
3. Printers are installed at Labs, HOD Cabins and all prominent places.
4. Photocopier machines - Multifunction printers are available at all prominent places in the institute. Four photostat machines available in campus.
5. Scanners- Multifunction printers are available at all prominent places.
6. Seminar Rooms- Three seminar halls are equipped with all digital facilities.
7. Smart Board installed in conference room
8. Auditorium is equipped with mike, projector, cameras and computer system.
9. Online Classes are conducted through Google Meet and managed

through Google Classroom.

10. MOOC Platform (NPTEL, Coursera, SAP, Udemy, Edx etc)

11. Digital Library resources (DELNET)

Use of ICT By Faculty

A. PowerPoint presentations - Faculty members are encouraged to use power-point presentations in their teaching by using LCD's and projectors. They are also equipped with digital library, online search engines and websites to prepare effective presentations.

B. Industry Connect- Seminar and Conference rooms are digitally equipped where guest lectures, expert talks and various competitions are regularly organized for students.

C. Online quiz- Faculties prepare online quiz for students after the completion of each unit with the help of Google Forms.

D. Video Conferencing- Students are counseled with the help of Google meet.

E. Video lecture- Recording of video lectures is made available to students for continuous learning and future referencing.

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

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

90

File Description	Documents
Upload, number of students enrolled and full time teachers on roll	View File
Circulars pertaining to assigning mentors to mentees	View File
Mentor/mentee ratio	View File

2.4 - Teacher Profile and Quality

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

219

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	View File
Any additional information	View File
List of the faculty members authenticated by the Head of HEI	View File

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

19

File Description	Documents
Any additional information	View File
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)	View 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

1085

File Description	Documents
Any additional information	View 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.

THEORY COURSES

The internal assessment marks are calculated based on the three term tests. Internal tests are conducted as per the academic schedule of Anna University. Each test carries maximum of fifty marks and cumulative becomes 150 marks. This 150 mark is divided uniformly across all COs of the course. The calculation procedure is educated to the students, within one week from the commencement of the classes. Internal assessment marks are periodically communicated to the students as well as parents. Further there is a system to upload attendance and Internal test marks in the University web portal at regular intervals. Students can view those details by logging in to the web portal by providing their register number and date of birth.

LABORATORY COURSES

All the students are taught the correct way of doing the experiments. 75 marks are awarded for the conduct of practical classes and this 75 mark is divided in to three subsections. They are Observation (25 marks), Record (25 marks) and Viva (25 marks). Apart from this a midterm practical examination is conducted for the each practical course for 100 marks. This 100 mark is reduced to 25 marks. Hence internal mark for the practical course is calculated for a total of 100 marks.

PROJECT WORK

Four project reviews are conducted for the project work. Out of four reviews last three reviews are taken in to consideration of awarding the internal marks. At the end of every Project Review, the marks scored by each student are displayed in the notice

board.

File Description	Documents
Any additional information	View File
Link for additional information	Nil

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

On the first week of every semester, students are informed about the system of internal examination process in class committee meetings.

Internal examinations for the theory courses, practical courses and project work are calculated as per the procedures laid down in the regulation of Anna University and the same is explained in the metric 2.5.1.

Internal evaluation reforms: Each department has Examination Coordinator for smooth conduction of Internal Tests. The results of each test are strictly declared within a week of the conclusion of the test. The answer scripts of examinations are issued to the students after evaluation to provide opportunity to find any discrepancies and bring it to the notice of faculty concerned. The corrected answer scripts are randomly verified by HOD & Dean Academics to ensure the standard in the evaluation process. If any grievances regarding internal examination are brought by the students, they are immediately taken up by the faculty concerned and necessary corrections are made within two days, if the claim made by the student is genuine. Evaluated answer scripts are verified, accepted and signed by the students. The evaluation of students is displayed on notice board

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

File Description	Documents
Any additional information	View File
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 stated and displayed on website and communicated to teachers and students.

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

Communication to teachers:

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

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

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

Communication to students:

The Outcome statements are displayed in prominent locations of the respective program.

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

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

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

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for Additional information	https://mahendracollege.com/downloads/2.6.1.pdf
Upload COs for all Programmes (exemplars from Glossary)	View File

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

Following assessment methods are used for the attainment of Course Outcomes, Program Outcomes and Program Specific Outcomes.

1. Direct Assessment (80%)

Continuous Internal Evaluation Examination (20%):

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

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

2. Indirect Assessment (20%)

- Students' Exit Feedback - 10%
- Employers' Feedback - 5 %
- Alumni feedback - 5 %

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

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

level 3

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

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

File Description	Documents
Upload any additional information	View File
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**

326

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	View File
Paste link for the annual report	Nil

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)**

<https://mahendracollege.com/downloads/SSS%20Questionnaire%202020-21.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)**

1.2

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

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**

7

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

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**

1

File Description	Documents
List of research projects and funding details (Data Template)	View File
Any additional information	No File Uploaded
Supporting document from Funding Agency	View File
Paste link to funding agency website	https://www.kavinengg.com/

3.2 - Innovation Ecosystem

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

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

Research Centers: The Institution has Research Centers in four Departments and undertakes consultancy project works with Industries. The objectives of the Research Centers are to explore research culture of societal relevance among the faculty members and students, motivating the faculty members to undertake research projects getting grants from various funding agencies and to enhance the interactions between researchers to cater to interdisciplinary developments. Currently 26 Research scholars have been registered and pursuing their doctoral degree under 5 eligible teachers. Also 4 scholars have completed their doctoral degree during the academic year under the supervision of our eligible teachers.

Institution's Innovation Council (IIC): The Institution had taken up many initiatives to create a vibrant local innovation system through Ministry of Education, Govt. of India (MIC) for the purpose of developing cognitive ability for the technology enhancement among students. This council of our Institution had organized totally 23 activities including IIC Calendar activities, Self-driven activities and Celebration activities. IIC had certified our Institution with 3 Star rating.

Collaborative Research: MOU had been signed with MaxCADD, Coimbatore on March 16, 2021. MaxCADD works on Additive manufacturing and our Institution on collaboration with the institute is to develop many 3D printed models. This will enhance Institute Industry interactions and transfer of knowledge among the stakeholders.

Publication: The Institute is publishing the International Journal of Applied Science & Technology (IJASE) to cater the specific needs of Industrial professionals, academicians and researchers.

File Description	Documents
Upload any additional information	View File
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

22

File Description	Documents
Report of the event	View File
Any additional information	No File Uploaded
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

8

File Description	Documents
URL to the research page on HEI website	http://www.mahendracollege.com/research_integrity.php?research&research_integrity
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc (Data Template)	View File
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

24

File Description	Documents
Any additional information	No File Uploaded
List of research papers by title, author, department, name and year of publication (Data Template)	View 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 papers in national/ international conference proceedings year wise during year

22

File Description	Documents
Any additional information	View File
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

Serving the neighborhood community is a critical component of a socially responsible institution and Mahendra College of Engineering (MCE) is committed to social responsibilities. The Institution encourages promotion of community services through setting up various forums and cells to guide the students in these directions. The National Service Scheme (NSS) Unit, National Cadet Corps (NCC) Unit and Youth Red Cross (YRC) Unit of MCE has become an important tool in sensitizing students and ensuring their direct participation in various social activities in and around Salem, which is improving the skills of students individually and towards leadership aspects.

NSS Unit: To create an impact on social well being and social awareness, the Institution had taken effective measures in conducting Awareness program on Acquired Immune Deficiency Syndrome (AIDS) which had enabled students to present posters on

AIDS and Essay competition on the causes and effects of AIDS. About 200 students have actively participated in the program and our Institution is awarded with Recognition certificate from Primary Health Centre, Karipatti on 2.12.2020 for organizing this Awareness Program on Acquired Immune Deficiency Syndrome (AIDS).

YRC Unit: YRC Unit of MCE had organized 2 webinars on National Pollution Control Day and National Pulse Polio Day with around 100 participants in each webinar.

NCC Unit: 9 students of our Institution have attended NCC Annual Training Camp at KSR College of Engineering, Tiruchengode, from 29.11.2021 to 05.12.2021

File Description	Documents
Paste link for additional information	http://www.mahendracollege.com/nss.php
Upload any additional information	View File

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

1

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

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/ YRC etc., during the year

5

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 Swachh Bharat, AIDs awareness, Gender issue etc. year wise during year

762

File Description	Documents
Report of the event	View File
Any additional information	No File Uploaded
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	View File

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

31

File Description	Documents
e-copies of related Document	View File
Any additional information	View File
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

6

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	View File
Any additional information	No File Uploaded
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	View 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.

The Institution has a policy for the creation and enhancement of infrastructure depending on the requirements of any change in the curriculum, student admission, and introduction of any additional courses. Under IQAC, College has appointed a committee for infrastructure and learning resources involving senior staff and student members on the committee.

The institution facilitates smart learning through smart classrooms. Presently, there are 52 classrooms equipped with WIFI facilities, furnished, and well-ventilated. The classrooms are also well illuminated. Classrooms are maintained as per norms for proper visibility and audibility. The classrooms are equipped with adequate furniture, a board, projectors, fans, lights, and power backup. 33 classrooms are provided with LCD projectors and LAN// Wi-Fi connectivity. The institution is constantly updating this number. The college has 4 seminar halls and 1 conference hall to conduct seminars, conferences, guest lectures, and workshops for students and faculty. All seminar halls have adequate seating capacity, and these are equipped with LCD projectors, whiteboards, raised platforms, and a public-address system with internet ease.

Further, there are 7 computer labs having 646 computers with internet and the latest computing equipment. Each department is having desktops having internet connectivity.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

Cultural Activities

To explore and nourish the hidden talents among the students, every year institution organizes various cultural events like dance, singing, skits, Debate, Street Play, Fireless cooking, Fashion show etc.,. The institution has an excellent sound and music system. The Institution is also taken the initiative to create many students clubs to involve the students in club activities.

Facilities for Sports

The institution motivates the students to participate in various sports activities to maintain a healthy atmosphere and to keep the students fit. The playground has many sports fields like basketball, volleyball, Football, Handball, Kabaddi, Kho-Kho, Cricket, Netball, and Athletic track. Apart from outdoor games, Institution has made available indoor games such as Table tennis, carrom, and chess.

C. Yoga and Meditation

The Yoga is conducted for students through the Yoga club which was established in the year 2016. Yoga day is celebrated every year. Students are encouraged to perform yoga during college cultural events and they take part in competitions and bring laurels and plaudits to the institution.

D. Gymnasium

The Institution runs various activities of student welfare which includes well maintained gymnasium housing various equipments for

keeping the body fit.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

34

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

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 (INR in lakhs)

88.8334

File Description	Documents
Upload any additional information	View File
Upload audited utilization statements	View File
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)

The main aim of the library is to provide the right source to the right user at right time. The collection of library includes Books, Journals, Magazines, Newspapers, Project documents, Back volumes, and CDs/DVDs in the field of Management, Science, Engineering, and Technology.

Library automation and computerization

- A Book database is created in the computer and is entered in the accession register as also for the journals/magazines which are updated for any additions or deletions.
- A student database is created in the computer with the roll numbers, student name, and a number of tokens.
- A staff database is created in the system with name, membership number, token number, and department.
- After the physical segregation of books under various disciplines, the same is carried out in the computer system program with interlinking accession numbers and call numbers.
- When books are issued, it is also entered into the computer. The member's number is entered and the accession number of the book or magazine borrowed by the member along with the date of issue and the due date. Book renewal can also be done in the same way.
- Books can be retrieved either if the author is known or if the title is known. Books can also be retrieved according to any particular subject since all the available books on that particular subject are also displayed.

OPAC

OPAC has different types of searching options like simple, advanced, and Boolean searches. Users can know the status of library material. We have integrated OPAC with digital library access outside the campus by WEB OPAC. MEMBER LOGIN/LOGOUT: software having member log-in and log-out module to authenticate attendance in the library for students and staff with bar-coding option. Can generate log reports according to date, month, year-wise too.

OPEN ACCESS OF ARRANGEMENT OF PRINT AND NON-BOOK MATERIALS

SPECIAL REPORTS

Institute has a rich collection of Special reports in terms of

Ph.D. thesis from the other universities which are used by our students and teachers for their research work. The college is a member of INFLIBNET for Shodhganga using this membership we are accessing more thesis from various college staff. Record of old project reports of students is maintained in the departmental library and college library. There are many project reports stocked in the college library for the sake of students and to motivate the students

E-Access to Engineering e-books and e-journals are subscribed to and made available to students. College provides online access to a number of refereed journals to promote research culture. The library has acknowledged Elsevier certificate for enriching years of relationship with online resources.

DELNET facilitates 500+ e-Journals and 2000+ e-books are available. There are more e-journals are subscribed from Springer comprising electrical, electronics, mechanical, and computer-related subjects. By using this faculty members published various journals and conference papers. The College is a member of INFLIBNET for 'E-shodh-sindhu'.

Digital Library facilities are also available in our institution library. We are accessing more e-books and e-journals through open source.

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

4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources A. Any 4 or more of the above

File Description	Documents
Upload any additional information	View File
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)

20.781

File Description	Documents
Any additional information	View File
Audited statements of accounts	View File
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

280

File Description	Documents
Any additional information	No File Uploaded
Details of library usage by teachers and students	View File

4.3 - IT Infrastructure

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

The IT Infrastructure and associated facilities have been augmented periodically, and when there is a requirement, introduce new technology to the students and faculty. The computer system's RAM graphics card and other hardware items are upgraded as per the needs and requirements of the various departments. All open source software, and licensed software is available

The Institution provides full-fledged computing facilities with necessary software and Wi-Fi facilities in the campus. Totally 646 computers are available across various laboratories and departments for the benefit of students and faculty members. These computers are upgraded every year.

Data Centre: Data Centre is well equipped with high-end equipment

DHCP Server, DNS Server, Firewall Server, Storage Server, Ubuntu server, Communication server Cisco 2800 series router, Network Video Recorder, Wireless Authentication Server, Web portal Server.

Wi-Fi: The Institution is networked with fiber optic cables, 24 hour Internet connectivity at the speed of 64 Mbps and about 12 Wi-Fi points spread over the entire campus of All-Academic Blocks, Auditorium, Library, Seminar Halls and Hostels(Girls and Boys), etc., with wired and wireless components.

- Stand alone facility available
- LAN facility

Information Security: M470 Watch Guard scans for any intrusion prevention system (IPS) network traffic to actively block attacks. Entire network is protected with Quick heal Endpoint Security antivirus software. Domain Controller login features enables us to safeguard any unauthorized access to critical data of professors, resources used in the network and to effectively track the system accessed/last login etc.

Network Facility: The institution has a 24X7 Wi-Fi facility in the college campus for the student and faculty members. Watch Guard Firebox M470 firewall is used for cyber security and network management. These M470 firewalls are rated for 201-300 users, 19.6 GBPS firewall throughput, and 5.2 GBPS VPN throughput.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.3.2 - Number of Computers

646

File Description	Documents
Upload any additional information	View File
List of Computers	View File

4.3.3 - Bandwidth of internet connection in the Institution

A. ? 50MBPS

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

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)

38.21843

File Description	Documents
Upload any additional information	View File
Audited statements of accounts	View File
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.

The college has appointed several personnel for maintaining the infrastructure by way of building maintenance, transport, furniture and generator operator in case if the power shuts down. Separate Complaint registers are maintained for various services like electrical, plumbing, housekeeping, transport, canteen etc.

CLASSROOMS

Institution has a supervisor who regularly maintains the boards, benches, fans and lights. Class

SPORTS

Physical Education Director is responsible for maintenance of sports goods, play fields and other items related to the Physical Education. Stock verification is done periodically at the end of

every year which gives information about working status of items and defective items.

IT MAINTENANCE

- System Admin and Technical Team members are responsible for maintenance of computers and network facility of the institution.
- Complaints are accepted through email (support@mahendra.info) and rectified the problems immediately.
- Antivirus is also procured and installed in all Servers and desktops for the maintenance of computers in the college.

LIBRARY MAINTENANCE

Library maintenance is computerized and automated with regular/constant up-keeping. Library committee follows up with the librarian and regularly monitors the library to ensure and maintain all text books, reference books, articles, competitive examination books, magazines, journals, e- magazines, e-books and e-journals.

Maintenance of Electrical and Electronics Equipments:

- Regular check up of equipment is carried out at the end of every semester.
- Breakdown register is maintained in the laboratories.
- Maintenance of computers is taken care by IT and COMPUTER department.
- Major repairs are outsourced by following the procedure of the institute.
- The faulty trainer kits are serviced by service engineers of specified companies. The measuring Instruments are calibrated regularly by standards companies.

Heads of the Departments in consultation with the lab - in charges and technical staff oversee the maintenance of the academic facilities pertaining to their laboratories, workshops and classrooms. Calibration of the meters and equipment is done by third- party companies regularly, to ensure accurate reading for the experiments conducted in the laboratories.

TRANSPORTATION:

The transport in-charge maintains college vehicles and obtains

necessary clearance certificates, insurance, and permits from the RTA.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

1341

File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	View File
Upload any additional information	No File Uploaded
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

323

File Description	Documents
Upload any additional information	View File
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://mahendracollege.com/downloads/5.1.3%20Capacity%20building%20and%20skill.pdf
Any additional information	View File
Details of capability building and skills enhancement initiatives (Data Template)	View File

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

980

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

980

File Description	Documents
Any additional information	View File
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The Institution has a transparent

A. All of the above

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

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	View File
Details of student grievances including sexual harassment and ragging cases	View File

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

260

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

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

28

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

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

10

File Description	Documents
Upload supporting data for the same	View File
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 activities at university/state/ national / international level (award for a team event should be counted as one) during the year.

1

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

Principal and the Head of the Department address the student representatives from each year and each class to obtain feedback and suggestions regarding academic and co-curricular activities directly. The feedback is taken by the HoD at the end of each semester and a separate student council meeting is conducted by the Principal to know the difficulties faced by the students. This feedback is then shared with concern faculty members for remedial actions. Apart from presenting the feedback, the students are also involved in the following active committees and association bodies of the institution.

Name of the Committee

Responsibilities

Department Association

Every department in the institution has its own association through which the students are allowed to organize several events like workshop, seminars, technical contest, symposiums, conference, etc. Student act as office bearers of the association.

Board of Studies

Students are significant stake-holders to provide curriculum feedback in order to modify the syllabi for the upcoming regulations.

Academic council

Students representative provide feedback and suggestions for the academic activities.

Industry-Institute Interaction Cell

Students take initiative in organizing Industrial Visit, Internship, Hands on training, etc.

Internal Quality Assurance Cell

Students provide feedback about the quality of various activities in the institution.

Anti ragging Committee

Student representatives ensure the ragging-free environment in the institution

Women Empowerment Cell

Students take initiative in organizing seminars, Guest lecturers etc., for the empowerment of women.

Extension Activities NCC,NSS,YRC

NSS volunteers work in rural areas, adopted villages and school to the serving the cause of society through survey, education and health awareness programme

Internal Complaints Committee (Vishaka Committee)

opportunity for the students to represent their feedback

R & D Committee

Library Committee

Hostel Committee

Boys

Girls

College Magazine Committee

opportunity for the students to represent their feedback

Mentoring Committee

Sports Committee

Website Committee

Training & Placement Cell

Alumni Association

Entrepreneurship Development Cell (EDC)

Clubs -

i. Motivational Club

ii. Go-green Club

iii. Yoga Club

iv. Literary Club

v. NDLI Club

vi. Fine arts Club

vii. Tecnovation Club

Institution Innovation Council (IIC)

Student Council

Unnat Bharath Abhiyan

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

8

File Description	Documents
Report of the event	View File
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

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

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

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

Alumni Contribution:

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

Above alumni activities are affected this year due to the COVID19 pandemic. The contribution of Alumni is reflecting in the Audited Income & Expenditure Statement under the head " Miscellaneous Income "

File Description	Documents
Paste link for additional information	https://mahendracollege.com/downloads/5.4.1%20Alumni.pdf
Upload any additional information	View File

5.4.2 - Alumni contribution during the year C. 3 Lakhs - 4Lakhs (INR in Lakhs)

File Description	Documents
Upload any additional information	View File

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

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

Vision

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

Mission

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

The Philanthropic Founder Chairman, Mr.M.G.Bharathkumar has a deep vision of serving the society with the motto "Service to the nation in the cause of Education".

Based on the recommendations of the Governing Council, commencement of new courses, expansion of infrastructure, implementation of strategy and other vital decisions are discussed with the Principal and Heads of departments. Management headed by the Chairman ensures that periodical meetings of Governing Council are conducted to discuss policy matters.

Institution has a perspective plan for development. Modernization of existing facilities, implementation of new ventures for R&D, expansion of infrastructure facilities like laboratories, library resources, classrooms, meeting halls and sports facilities are important aspects in the annual plan of Institution.

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

Principal and Dean-Academics take decisions in the academic matters conforming to the regulations of the affiliating University.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

Decentralization: The institution functions with a decentralized governance system. Heads of department have been permitted with the authority of deciding the activities and delegating responsibilities to the staff members. Every department decides individually on timetable, subject allocation, purchase and maintenance of equipment and consumables, organizing conferences, symposia, guest lectures and workshops and recommends industrial visits, in-plant trainings, internships and MoUs in consultation with Department Advisory Committee. Heads of Department have the powers to plan their academic, co-curricular and Extra-curricular activities, technical events, Resource Persons to be invited etc., aligning with the Academic Calendar of the Institution. Principal and Heads of Department are given financial powers up to Rs.25000 and Rs.5000 respectively for the purchase of consumables and any other contingency.

Participative management: Institution is functioning effectively with the culture of participative management which enables the faculty and students to give their suggestions for improvement. All the academic activities are decentralized and decisions are taken based on discussion and deliberations in the class committee meetings, department meetings, faculty meetings, HODs' meetings with Principal and HODs meetings with Chairman. Principal coordinates with the departments, administration and management. Participative management provides extensive scope for having collaboration among the departments and ensures the quality of planning and implementation of all the activities in the institution uniformly. Management, Principal, Dean-Academics, Heads of Department, Teaching and Non-teaching Staff and administrative staff work towards a common goal of achieving Excellence.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

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

With the intention of providing ample avenues, enhancing the infrastructure facilities in the form of new construction to accommodate classrooms, laboratories, auditorium and library facilities have been in the agenda of the continuous process. Though the needed facilities are in place as per requirements and regulations of affiliating university, they are enriched with the aim of fulfilling the goals in the strategic plans which go beyond the syllabus as well to make the student fraternity not only professionals, but also responsible citizens who can contribute for the development of society and the nation.

In the academic year 2020-21,

- Library reading area space is increased.
- A new Centre of Excellence for "Internet of Things" established with new Equipments.
- Building space for Community Radio Station Studio is created and a Communication tower for the same is installed.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	http://mahendracollege.com/downloads/Perspective%20Plan.pdf
Upload any additional information	View File

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.

Governing Council, the highest body of policy making, meets periodically to discuss various issues and aspects related to the development of the Institution. It includes review of the Institution strategic plan, which sets the academic aims and objectives of the Institution and identifies the financial,

physical and administration strategies. Governing Council considers the recommendations of various Department Advisory Committees (DAC) and it chalks out a roadmap to achieve the goals of the Institution.

Various Committees at the Institute level:

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

Principal is the chairperson of administrative and academic activities of the institution. Heads of department take the responsibility of executing all administrative and academic activities of the department. HoDs possess both the academic and the financial autonomy. They are entitled to take decisions as per the needs of the situations in emergencies and get them ratified by the Head of the Institution subsequently. Principal, HoDs and Team leaders are sanctioned imprest amount, for ensuring the execution of multiple events scheduled.

Recruitment of teaching, non teaching and office administration staff is planned at the end of every academic year as per the requirements of the next academic year. Staff appraisal system is used for deciding the promotions.

File Description	Documents
Paste link for additional information	http://mahendracollege.com/downloads/HR-Policy.pdf
Link to Organogram of the institution webpage	https://mahendracollege.com/downloads/6.2.2 Organization Structure.pdf
Upload any additional information	View File

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	View File
Screen shots of user inter faces	View File
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 measures for teaching staff

- Financial support to the staff members affected by COVID 19 Virus.
- Free transport facilities.
- Waiver of fees for teachers' children in the Institution.
- Medical leave and Maternity leave.
- Supporting for education of the children of the teachers in the group institutions.
- Marriage gifts with the sanction of one week leave.
- Gifts and mementoes during Teachers' Day celebrations.
- Sponsoring for attending conference, workshops and FDPs.
- Incentive for publication of papers / research articles.
- Reward for producing University Ranks.
- Cash awards for academic excellence / 100% pass.
- Special Study Leave (SSL) to pursue higher education.
- Faculty Retreat.
- Subsidized canteen fares.
- Group Insurance.

Welfare schemes for non-teaching staff

- Financial support to the staff members affected by COVID 19 Virus.
- Employees State Insurance (ESI) Scheme
- Educational support to the children of the staff.
- Marriage gifts with the sanction of one week leave.
- Granting medical leave / maternity leave.
- Free transport facilities.
- Special Study Leave (SSL) for higher studies.

- Incentive for attending orientation & Skill Development programmes
- Faculty Retreat.
- Incentive for dress materials
- Incentive for vehicle utilization or transport allowance for drivers
- Subsidized canteen fares
- Group Insurance

File Description	Documents
Paste link for additional information	http://mahendracollege.com/downloads/HR-Policy.pdf
Upload any additional information	View File

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

112

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

37

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)	View 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

113

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	View File
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

The management evaluates the performance of the faculty based on teaching, research, participation in department activities, ability to work in a team, arranging co-curricular and extracurricular activities and publications. The appraisal system

motivates the staff to excel and put in the best of their efforts.

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

A team comprising senior faculty, both internal and external, evaluate the staff, analyzing the following factors.

- Experience.
- Skill up gradation through participation in Conferences, Workshops, Faculty Development programs.
- Innovative teaching practices.
- Pursuing higher studies - Ph.D / PDF
- Research activities and obtaining patents.
- Results produced in the University Examinations.
- Publications in the Scopus indexed / impact factor / e - journals & conference proceedings.
- Publication of books.
- Consultancy & Sponsored research projects.
- Mentoring and Counseling techniques.
- Feedback from HOD and Principal.
- Feedback from students.
- Awards - state and national level.
- Initiatives in conducting co-curricular and extra-curricular activities

Following factors are considered in the appraisal system for non-teaching staff.

- Experience.
- Skill up gradation through Orientation Programs, Refresher Course, Short Term Courses.
- Higher Studies.
- Feedback from HOD and Principal.
- Active participation in team work.
- Work Discipline.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

Periodical Internal Audits are performed by officials deputed from Trust office and reports are prepared before the Auditor's external audit which normally happens after the closure of the accounts in all respects. External Audit is done by the Statutory Auditors after 30th June of the subsequent year.

During the course of Internal Audit, all required steps are taken to regularize the accounts and to obtain confirmations for the credit balances, to collect documentary evidences wherever necessary in respect of payments, compliances of T.D.S. and Statutory Formalities and Reconciliation of unit wise balances with the Control Accounts and Bank Reconciliations.

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

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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)

1

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

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

Funds Mobilization:

Fees Collection

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

Term Loan and Hire Purchase Loans

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

Government Grants and Sponsorship Receipts

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

Corpus Donation of Trust and Trust Contribution

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

Optimal Utilization

Recurring Expenses

Salary to staff, academic activities, maintenance and other expenses are done with fees collection.

Infrastructural development facilities and Building construction works

Management allocates budget to create and upgrade the infrastructure facilities. Loans received from banks are judiciously utilized for the same.

Institution applies and gets grants from AICTE schemes for purchase of modern lab equipments, purchase of latest version software and others.

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

Research and project activities

Institution is committed to achieve excellence in research. Faculty members carry out many R&D projects using the grants received from various funding agencies.

Seminars, Conferences, FDPs and other co-curricular activities:

Institution conducts the above events regularly on various emerging technologies, innovations, research changes and needs of the society. These events are conducted from the funds received from the Professional bodies & sponsoring agencies.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

IQAC insisted through the faculty members on registering for NPTEL Online courses by the students:

During the lockdown periods of the COVID 19 pandemic, students should not lose the learning habit and techniques. Keeping this in mind, IQAC insisted the members to encourage and promote the online courses in a big way. Faculty members highlighted the advantage of registering and learning the NPTEL courses to the students. This effort paid off and many students took up the online courses and got benefitted.

IQAC insisted on the skill development of Faculty and staff:

During the lockdown periods of the COVID 19 pandemic, Faculty and staff members are instructed to take utmost care in staying physically healthy and safe. In addition, their mental health shall also be taken care by engaging their mind effectively. This is successfully achieved by attending Webinars of their choice and passion. All the faculty and staff members have attended several online webinars and benefitted in a tremendous manner. IQAC through various meetings continuously monitored this process.

File Description	Documents
Paste link for additional information	https://mahendracollege.com/igac.php?activities&igac
Upload any additional information	View File

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

Effective use of emerging technologies for teaching and learning is highly significant in the COVID 19 pandemic period. Often one of the biggest barriers in incorporating emerging technologies is the fear of how to implement them effectively. Not every faculty member is tech savvy or understands the full potential of how the latest technology in education can drive the success of students. Particularly, fears are high on implementing these emerging technologies in education with the social distancing requirements posed by COVID-19.

Understanding this challenging situation. IQAC of the Institution instructed the departments to organize several awareness programs to the faculty, staff and students on effective use of online platforms for not only teaching but also two way communication, assessment and evaluation. Resource persons from Industry and

Academia are invited to present their expert lectures to the students. This initiative by IQAC had a tremendous impact, keeping the faculty and students in a mindset as if they were physically present in the Institution.

In addition to the teaching methodology, IQAC has also suggested effective means of evaluating the students. IQAC suggested open book examinations for the evaluation of students. Faculty members were instructed to prepare question papers in a challenging manner so that the answers cannot be written directly from any text book, but the students have to think and find the solutions based on their understanding of the concepts. This initiative brought a positive change and students responded well.

File Description	Documents
Paste link for additional information	https://mahendracollege.com/iqac.php?activities&iqac
Upload any additional information	View File

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)

A. All of the above

File Description	Documents
Paste web link of Annual reports of Institution	https://mahendracollege.com/iqac.php?activities&iqac
Upload e-copies of the accreditations and certifications	View File
Upload any additional information	View File
Upload details of Quality assurance initiatives of the institution (Data Template)	View File

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

The institution has absolutely no conciliation in the security issues. Right from the inception of the college, the management has taken serious steps to have the security to the entire campus. The security personnel monitor the movements in the campus round the clock. CCTV cameras have been installed in main places like entrance gate, library, auditorium, office etc., for the safety of the students. These security guards near the entrance physically check the vehicles and belongings during entries to the campus and exit from the campus. The college has been fenced with concrete wall to protect any intrusion to the campus from outside. One of the main objectives of the institution is to promote education that would be sensitive to the needs of the various sections of society with special emphasis on gender equality and gender sensitivity. Students of both the genders are given equal opportunities to develop into responsible citizens of the future. The institution constantly makes efforts to maintain gender balance among the faculty members and students. Departments headed by men and women are equally balanced. Female Teaching and non-teaching faculty members are equal in number with the other gender. Similarly, the number of women in the administrative and housekeeping departments equal with the male counterparts. Women empowerment cell deals with all the grievances faced by girl students and lady faculties. It regularly addresses the complaints filed by the girl students and provide a safe environment for them. The women's club activities are planned, organized and executed by a committee comprising of 25 girl students representing all the departments with the guidance of the women faculty members. Apart from Women's empowerment club, there are other student clubs vibrant in the institution comprising both the gender. There is a separate Counselling Room for counseling the students who need moral support and care. Dr. Padmaja is the incharge for counselling cell in our Institution. This Counselling cell periodically meets the needy students for effective counseling. Local guardians take care of the students regularly. They help the students to solve their personal and academic problems to the possible extent. Students will be monitored and counseled on academic performances, attendance, regularity, punctuality, disciplinary matters, safety and security measures etc. The students are free to meet their local guardians any time to share and discuss their problems. The college has a disciplinary committee with a senior professor as chairperson and few experienced teachers as members. The committee gives utmost

importance for maintaining student discipline in the class room as well as in the campus. In case a student violates any disciplinary regulations of the college, the matter is referred to the committee. After proper enquiry, the committee sends its reports to Principal recommending suitable action. There is a Centralized Counseling Cell in the institution. Students will be counseled on a need basis by the centralized Counselor. Regular Events for promotion of Gender Equity has been planned and executed by inviting various chief guests. Women empowerment cell and Anti-Ragging committee are also actively monitoring and promoting safety aspects and empowerment aspects of girl students.

File Description	Documents
Annual gender sensitization action plan	https://mahendracollege.com/downloads/7.1.1.Gender_Equity_programs.pdf
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://www.mahendracollege.com/vishaka_committee.php?facilities&vishaka_committee

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

A. 4 or All of the above

File Description	Documents
Geo tagged Photographs	View File
Any other relevant information	View File

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

Response:

To reduce waste in the institution, students and staff are educated on proper waste management practices through lectures, advertisement on notice boards, displaying slogan boards in the

campus. The total solid waste collected in the campus is around 15 Kg/day on an average from tree leaves, paper cups, waste paper etc. The waste is segregated at source by providing separate dustbins for Bio-degradable and non-bio-degradable solid wastes. Single sided used papers are reused for writing and printing in all departments. Food waste in the canteen is monitored and displayed to the students using a white board just to create an awareness on wastage done. This could help the students to avoid consciously the wastage of food.

Use of plastics is banned inside the campus. Students are requested to bring lunch and drinkingwater in stainless steel containers. However recyclable plastics with higher thickness are permitted. Canteen contractor is strictly instructed to avoid plastic cups. Solid waste is collected and given to the vendor at regular intervals. Metal and wooden waste is stored and given to authorized scrap agents for further processing. Glass bottles are reused in the laboratories.

Sanitary napkins are disposed of using incineration process through the incinerators kept at ladies toilets

Liquid waste management:

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

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

E-waste management:

Use of personal mobile phones, memory cards etc. are restricted in the campus for students.

The campus has centralized facility to collect e-waste from the laboratories through housekeeping personnel. E-wastes such as computers, laptops, scanner, printers, bread-boards used for project purposes etc. if generated are collected centrally & disposed off. Old monitors and CPUs are repaired and reused.

The college has taken steps to optimize its repository of computers through reassembling, modification and upgradation by a

team of IT Administrator, faculty members and students of Computer Science Engineering and Information Technology. This has been a critical endeavour towards E-waste management ensuring that no discarded computers or printers are lying idle in the office premises.

E-waste from laboratories is properly collected and is given to the licensed recycling Agency, reused wherever possible, donated and sold, if possible. Non-working computers, monitors, and printers are discarded and scrapped on a systematic basis. Some parts useful for other systems are kept aside for future use. Students are also inculcated on awareness and education about the handling of E-Waste.

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

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows: A. Any 4 or All of the above

1. Restricted entry of automobiles
2. Use of bicycles/ Battery-powered vehicles
3. Pedestrian-friendly pathways
4. Ban on use of plastic
5. Landscaping

File Description	Documents
Geo tagged photos / videos of the facilities	View File
Various policy documents / decisions circulated for implementation	View File
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	View File
Certification by the auditing agency	View File
Certificates of the awards received	No File Uploaded
Any other relevant information	No File Uploaded

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, screen-reading software, mechanized equipment 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading

A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	View File
Policy documents and information brochures on the support to be provided	View File
Details of the Software procured for providing the assistance	View File
Any other relevant information	View File

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).

Response:

Serving the neighborhood community is a critical component of a socially responsible institution and Mahendra College of Engineering (MCE) is committed to social responsibilities. The Institution encourages promotion of community services through setting up various forums and cells to guide the students in these directions. The National Service Scheme (NSS) Unit, National Cadet Corps (NCC) Unit and Youth Red Cross (YRC) Unit of MCE has become an important tool in sensitizing students and ensuring their direct participation in various social activities in and around Salem, which is improving the skills of students individually and towards leadership aspects.

NSS Unit: To create an impact on social well being and social awareness, the Institution had taken effective measures in conducting Awareness program on Acquired Immune Deficiency Syndrome (AIDS) which had enabled students to present posters on AIDS and Essay competition on the causes and effects of AIDS. About 200 students have actively participated in the program and our Institution is awarded with Recognition certificate from Primary Health Centre, Karipatti on 2.12.2020 for organizing this Awareness Program on Acquired Immune Deficiency Syndrome (AIDS).

YRC Unit: YRC Unit of MCE had organized 2 webinars on National Pollution Control Day and National Pulse Polio Day with around 100 participants in each webinar. **NCC Unit:** 9 students of our Institution have attended NCC Annual Training Camp at KSR College of Engineering, Tiruchengode, from 29.11.2021 to 05.12.2021

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View File
Any other relevant information	No File Uploaded

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

A course on human values and professional ethics is offered in the Curriculum for all the branch of engineering students. The students are being inculcated with the knowledge on human values like moral values, integrity and ethics. Students are being encouraged and motivated to be honest in their professional career. The course also stresses the role of engineers as a responsible experimenter with proper code of ethics with a balanced outlook on law. The students are being given regular programs with motivational speakers and have been brainstormed with the value rights and duties of being a responsible citizen of the country. Leaders of the institution give an awareness on values rights duties and responsibilities of citizens. During the voter's day celebrations, the students are educated on the importance of voting. National constitution day of the country is celebrated by the students and faculty members of MCE to help them understand the duties and responsibilities of being a good citizen of the country.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	https://mahendracollege.com/downloads/7_1_9_constitutional_obligations.pdf
Any other relevant information	Nil

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 A. All of the above

professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized

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

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

National Energy Conservation day: Celebrated every year on the 14th of December, the National Energy Conservation day is a reminder of India's commitment to clean energy and combating climate change. Institution celebrated energy conservation day. Department of Electrical and Electronics Engineering, Mahendra College of Engineering, Salem Campus, Minnampalli, Salem had organized a Poster Design & Presentation Contest on "National Energy Conservation Day-2021" on 14.12.2021. The students presented posters depicting various ways to conserve energy.

National Education Day: The purpose of celebrating National Education Day should be to strengthen our educational institutions. It is to remind us to keep raising the quality of education to greater heights. It should be an occasion to remember Maulana Azad's contribution majorly for two reasons. First, in laying the foundations of the education system in an independent India. Second, to evaluate our current performance in this field. So on this day, all people who are involved in the field of education should come together to seek ways to advance India's prestige in the world, as a knowledge society and to focus on how to educate our people. Institution celebrated National Education day to help the students realize the importance of Education.

National Pollution Control Day: December 2 is observed as National Pollution Control Day every year. The day is observed in the

memory of those who have lost their lives in the Bhopal Gas tragedy on the night of December 2nd and 3rd, 1984. Institution celebrated National Pollution control day to bring the awareness among the students about pollution control.

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

7.2 - Best Practices

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

PRACTICE- I: KNOWLEDGE SHARING FORUM FOR IDEA TANK, INNOVATION AND PATENTS.

Goals:

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

Objective:

1. To keep the faculty members updated on current trends related to innovation, Research and patents in the field of Science, Engineering and Technology
2. To increase the interaction level of the faculty members of multiple-disciplinary nature under a common forum.
3. To keep the faculty members updated on emerging technologies and facilitate knowledge transfer to the faculty members outside their domain.
4. To enhance the presentation, teaching, learning and listening skills of the faculty members

The Context

Knowledge sharing means the exchange of faculty members' knowledge, skills, and experiences with fellow members related to the research, innovation, ideas and patents. Faculty members will be disseminating the knowledge in the above said areas to improve the research culture leading to publishing research articles and patents. It ensures that the knowledge within an organization is available for faculty members and its benefits include the art of getting published their patents and research articles in the emerging areas and peer reviewed journals

The Practice

- Faculty will give their technical presentations as per the regular schedule
- Recent technological developments can be selected.
- Topic may include journals of particular domain, patent laws, patent drafting for beginners.
- End of the session there will be a feed back to evaluate the understanding of the presentation.

Evidence of success

1. Confidence level of the staff members has improved. Through this event, the areas of interest of the faculty member who presented their topics are also well exhibited and their strengths can be well utilized
2. Has created a competitive environment among the staff to make better presentations.
3. It has resulted in increase in the number of publications by our faculty and increase in the number of patents registered by them.

Problems Encountered and Resources required.

1. Allocation to time on a regular basis was a major problem encountered.

PRACTICE- II: RECORDED VIDEO LECTURES BY FACULTY

Goals:

1. To create data base of videos of faculty teaching engineering subjects
2. To facilitate the students to understand better.

3. To increase understanding level of subjects for the students.

Objective:

1. The student can learn whenever he wants to learn
2. All students can learn at their own pace which will maximize the result of learning
3. To help the student understand the subject better and to help him score better marks

The Context

In general, the human mind is not capable of focusing continuously for more than 10 to 15 min but as a general practice we tend to take our classes continuously for 50 min. It is practically very difficult for all the learners to understand the subject at this pace. Hence, we want to give recorded lectures to the students to help them understand better. The student can pause the video incase of any doubts and can browse the internet to clear their doubts and can continue their classes. This will help the engineers learn their topics at their own pace.

The Practice

- Faculty will give their recorded lectures
- Difficult topics will be covered and uploaded in the systems present in library
- Students can come to library and see and hear the videolectures when they are free.

Evidence of success

- Confidence level of the students has improved.
- Through this event, the areas of interest of the faculty member who presented their topics are also well exhibited and their strengths can be well utilized
- Has created a competitive environment among the staff to make better video presentations.
- Faculty can view their own video presentations and can improve it regularly and can make it a better version of themselves.

Problems Encountered and Resources required.

1. Allocation to time on a regular basis was a major problem

encountered.

Information on Video Lectures Sample on the college website :https://www.mahendracollege.com/video_lectures.php?facilities&videlectures

File Description	Documents
Best practices in the Institutional website	https://mahendracollege.com/downloads/best_practices_Gallery.pdf
Any other relevant information	Nil

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

MAHENDRA EQUIP 360° is a distinctive quality practice followed in the Institution to bring out 360° growth in every student. The slow learners will be given with additional coaching with the extra care to elevate as advanced learners. All the advanced learners will undergo a practical enriched training program in core Industries for 360 hours.

The process for this program is as follows:

1. Department will have the panel of industries for this program.
2. MoU will be signed by the Department with the Industries.
3. Students can also choose research organizations and Government laboratories for the training in addition to the industries.
4. Students will be allotted a Particular Industry for the training in every semester at least for 60 hours to the maximum of 90 hours.
5. The students shall report the type and progress of the training to the guide in regular intervals and seek his/her advice
6. Upon successful completion of training in every semester, the student needs to submit a report to the HoD concerned.
7. This will be practiced from third semester to seventh semester to cover 360 hours of training. Successful completion of training will yield certification from both Institute and Industry. The students will get the opportunity

to do their final year project in the industry where they trained.

The Department shall nominate staff member(s) to facilitate, guide and supervise students under this scheme. The outcome of this programme will create industry ready Engineers with appropriate skill set and will pave a path for job opportunities in the industry where they trained. Thus slow learners will be properly moulded to become advance learners by remedial classes and advanced learners will be groomed with the leadership qualities industrial exposures to become society inclined industry ready ethics oriented professionals.

MAAAC

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

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

- Prior planning of Academic activities and preparation of institute academic calendar in alignment with the University Academic schedule.
- Formulation of objective driven teaching plans for all courses at the beginning of the semester.
- Updating the library facilities and e-journals in line with Curriculum and syllabus changes of the University for the Regulations in force. Course allocation to faculty based on their specialization, Experience and faculty's interests.
- The Course file prepared by the faculty includes Vision & Mission statements of the Institute and Department, Programme Educational Objectives (PEOs) Statements and mapping with PO and CO, Time table, Course Syllabus, Course Data Sheet, Lesson plan, Course materials, Lecture notes, Content beyond syllabus, Assignments topics, Tutorial Problems.
- The Record of class work includes the Topic covered, Mode of delivery, date & period, details of students, percentage of attendance, Assignments Marks, Internal Assessment Marks, Slow learners and Students Counselling Particulars.
- Systematic examination process, standard question papers as per Bloom's Taxonomy, proper and prompt evaluation, "Outcome based approach" is adopted for the effective delivery of the curriculum.
- Online learning became much more widespread with the outbreak of COVID-19 and college closures.
- To adapt to a new way of teaching during the Covid19 crisis we have introduced on line classes with a view of maintaining uninterrupted flow of knowledge.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	http://mahendracollege.com/downloads/2.6.1.pdf

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

Each semester in an academic year commences on the date specified by the Anna University. The university publishes in advance, the academic schedule containing plans for curricular activities based on the available working days as per University norms. It clearly specifies the dates for entering the students' attendance, test marks etc. There is a faculty member responsible for preparing the academic calendar for the Institution. He/She prepares Academic calendar of the Institution in line with the University Academic Schedule.

Approval for the same is given by heads of departments and the Principal after effecting minor changes, if required. The academic calendar is then circulated to all faculty members before the commencement of the semester. Academic calendar of the Institution includes schedule of curricular activities, assessment dates, technical events, class tests, submission of mark lists, placement Training slots, list of holidays and extracurricular activities. Students are then informed about time table and academic calendar. The detailed lesson plan/teaching methodology as suited to syllabus is prepared by each faculty before the commencement of the semester.

Monitoring of implementation of lesson plan is done by Heads of the departments and corrective actions are suggested wherever required. Due to the outbreak of COVID-19 all the regular classes, continuous Internal Assessment tests/Quiz/Assignments are conducted and evaluated through online mode (Google class room) as per the Academic schedule provided.

File Description	Documents
Upload relevant supporting document	View File
Link for Additional information	https://www.mahendracollege.com/downloads/Academic-Calendar_2020-2021.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 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

A. All of the above

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

13

File Description	Documents
Any additional information	View File
Minutes of relevant Academic Council/ BOS meetings	No File Uploaded
Institutional data in prescribed format (Data Template)	View File

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)**

24

File Description	Documents
Any additional information	View File
Brochure or any other document relating to Add on /Certificate programs	View File
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

1150

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**

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

University. Now it has been made Core course in some of the programs. This course is offered to the students of all programs either as Core or as an Elective.

- An induction programme has been introduced by AICTE into the curriculum from the Academic year 2021-2022 for the newly joined first year students of all the programmes and the Universal Human Values is the anchoring activity of the Induction Programme. It gets the students of both gender to explore oneself and allows one to experience the joy of learning, stand up to peer pressure, take decisions with courage, be aware of relationships with colleagues and supporting stay in the hostel and department, be sensitive to others, etc.

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

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

112

File Description	Documents
Any additional information	View File
Programme / Curriculum/ Syllabus of the courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	No File Uploaded
MoU's with relevant organizations for these courses, if any	View File
Institutional Data in Prescribed Format	View File

1.3.3 - Number of students undertaking project work/field work/ internships

727	
File Description	Documents
Any additional information	View File
List of programmes and number of students undertaking project work/field work/ /internships (Data Template)	View File
1.4 - Feedback System	
1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni	A. All of the above
File Description	Documents
URL for stakeholder feedback report	http://mahendracollege.com/downloads/1.4.1-link.pdf
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View File
Any additional information	View File
1.4.2 - Feedback process of the Institution may be classified as follows	A. Feedback collected, analyzed and action taken and feedback available on website
File Description	Documents
Upload any additional information	View File
URL for feedback report	http://mahendracollege.com/downloads/1.4.1-link.pdf
TEACHING-LEARNING AND EVALUATION	
2.1 - Student Enrollment and Profile	
2.1.1 - Enrolment Number Number of students admitted during the year	

2.1.1.1 - Number of students admitted during the year

293

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

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**

293

File Description	Documents
Any additional information	View File
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

Institution identifies and responds to special learning needs of both advanced and slow learners:

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

Assistance provided for advanced learners:

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

- Encouraging the students to be active members or office bearers of various professional bodies and branch associations.
- To take up industry based projects.

- To organize various events relating to the emerging areas.
- Assigning seminar topics.
- Topics on content beyond syllabus taught to enhance their knowledge.

Assistance provided for slow learners:

Institution encourages effective mentoring system. From the academic record of all the students, slow learners are identified. If the students are slow in their learning process, the mentor who is also the guide, identify the nature of their problems and motivate them to attain their academic goals.

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

Mentors develop a rapport with the concerned students through personal interactions.

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

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

Number of Students	Number of Teachers
1231	219

File Description	Documents
Any additional information	View File

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

Following structures and systems are available for faculty members and students to implement student centric learning to

enhance the learning experience in the campus:

- Activity based learning (ABL)
- Project based learning (PBL)
- Mini projects
- Major projects
- Survey camps, etc.

Student's seminars, Group Discussions and hands on training make the students to involve in the learning process

Library, Internet facility and language lab contribute more for the activity based learning

In-plant Training, Industrial visits & Internships also make the students to learn the concept practically

Assignments are given for self learning, which involve the making of working models to explain the working concepts

Students' participative learning is encouraged during the regular class hours. Following teaching techniques are regularly followed by faculty members to encourage participative learning.

- Exhibition and demonstrations of working models
- Group Discussions
- Role play
- Debate
- Seminars

Soft skills training sessions are also conducted by external experts, which include Problem solving techniques. Students are also trained by the experts, in improving the presentation and communication skills.

File Description	Documents
Upload any additional information	View File
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

Faculty members are combining technology with traditional mode of instruction to engage students in long term learning. Institution uses Information and Communication Technology (ICT) in education to support, enhance, and optimize the delivery of education.

Following ICT tools are used by the Faculty members.

1. Projectors- 37 projectors are available in different classrooms / labs
2. Desktop and Laptops- Arranged at Computer Lab and Faculty cabins all over the campus.
3. Printers are installed at Labs, HOD Cabins and all prominent places.
4. Photocopier machines - Multifunction printers are available at all prominent places in the institute. Four photostat machines available in campus.
5. Scanners- Multifunction printers are available at all prominent places.
6. Seminar Rooms- Three seminar halls are equipped with all digital facilities.
7. Smart Board installed in conference room
8. Auditorium is equipped with mike, projector, cameras and computer system.
9. Online Classes are conducted through Google Meet and managed through Google Classroom.
10. MOOC Platform (NPTEL, Coursera, SAP, Udemy, Edx etc)
11. Digital Library resources (DELNET)

Use of ICT By Faculty

A. PowerPoint presentations - Faculty members are encouraged to use power-point presentations in their teaching by using LCD's and projectors. They are also equipped with digital library,

online search engines and websites to prepare effective presentations.

B. Industry Connect- Seminar and Conference rooms are digitally equipped where guest lectures, expert talks and various competitions are regularly organized for students.

C. Online quiz- Faculties prepare online quiz for students after the completion of each unit with the help of Google Forms.

D. Video Conferencing- Students are counseled with the help of Google meet.

E. Video lecture- Recording of video lectures is made available to students for continuous learning and future referencing.

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

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

90

File Description	Documents
Upload, number of students enrolled and full time teachers on roll	View File
Circulars pertaining to assigning mentors to mentees	View File
Mentor/mentee ratio	View File

2.4 - Teacher Profile and Quality

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

219

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	View File
Any additional information	View File
List of the faculty members authenticated by the Head of HEI	View File

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

19

File Description	Documents
Any additional information	View File
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)	View 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

1085

File Description	Documents
Any additional information	View 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.

THEORY COURSES

The internal assessment marks are calculated based on the three term tests. Internal tests are conducted as per the academic schedule of Anna University. Each test carries maximum of fifty marks and cumulative becomes 150 marks. This 150 mark is divided uniformly across all COs of the course. The calculation procedure is educated to the students, within one week from the commencement of the classes. Internal assessment marks are periodically communicated to the students as well as parents. Further there is a system to upload attendance and Internal test marks in the University web portal at regular intervals. Students can view those details by logging in to the web portal by providing their register number and date of birth.

LABORATORY COURSES

All the students are taught the correct way of doing the experiments. 75 marks are awarded for the conduct of practical classes and this 75 mark is divided in to three subsections. They are Observation (25 marks), Record (25 marks) and Viva (25 marks). Apart from this a midterm practical examination is conducted for the each practical course for 100 marks. This 100 mark is reduced to 25 marks. Hence internal mark for the practical course is calculated for a total of 100 marks.

PROJECT WORK

Four project reviews are conducted for the project work. Out of four reviews last three reviews are taken in to consideration of awarding the internal marks. At the end of every Project Review, the marks scored by each student are displayed in the notice board.

File Description	Documents
Any additional information	View File
Link for additional information	Nil

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

On the first week of every semester, students are informed about the system of internal examination process in class committee meetings.

Internal examinations for the theory courses, practical courses and project work are calculated as per the procedures laid down in the regulation of Anna University and the same is explained in the metric 2.5.1.

Internal evaluation reforms: Each department has Examination Coordinator for smooth conduction of Internal Tests. The results of each test are strictly declared within a week of the conclusion of the test. The answer scripts of examinations are issued to the students after evaluation to provide opportunity to find any discrepancies and bring it to the notice of faculty concerned. The corrected answer scripts are randomly verified by HOD & Dean Academics to ensure the standard in the evaluation process. If any grievances regarding internal examination are brought by the students, they are immediately taken up by the faculty concerned and necessary corrections are made within two days, if the claim made by the student is genuine. Evaluated answer scripts are verified, accepted and signed by the students. The evaluation of students is displayed on notice board

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

File Description	Documents
Any additional information	View File
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 stated and displayed on website and communicated to teachers and students.

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

Communication to teachers:

All the faculty members are maintaining the course files for the courses taught by them. The prominent content in these

course files are the PEOs, POs, PSOs of the relevant Program.

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

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

Communication to students:

The Outcome statements are displayed in prominent locations of the respective program.

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

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

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

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for Additional information	https://mahendracollege.com/downloads/2.6.1.pdf
Upload COs for all Programmes (exemplars from Glossary)	View File

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

Following assessment methods are used for the attainment of Course Outcomes, Program Outcomes and Program Specific Outcomes.

1. Direct Assessment (80%)

Continuous Internal Evaluation Examination (20%):

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

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

2. Indirect Assessment (20%)

- Students' Exit Feedback - 10%
- Employers' Feedback - 5 %
- Alumni feedback - 5 %

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

1. 60% to 69% of the students score above 55% marks = Attainment level 1

2. 70% to 74% of the students score above 55% marks = Attainment level 2

3. Above 75% of the students score above 55% marks = Attainment level 3

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

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

File Description	Documents
Upload any additional information	View File
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

326

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	View File
Paste link for the annual report	Nil

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)**

<https://mahendracollege.com/downloads/SSS%20Questionnaire%202020-21.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)**

1.2

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

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

7

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

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**

1

File Description	Documents
List of research projects and funding details (Data Template)	View File
Any additional information	No File Uploaded
Supporting document from Funding Agency	View File
Paste link to funding agency website	https://www.kavinengg.com/

3.2 - Innovation Ecosystem**3.2.1 - Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge**

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

Research Centers: The Institution has Research Centers in four Departments and undertakes consultancy project works with Industries. The objectives of the Research Centers are to explore research culture of societal relevance among the faculty members and students, motivating the faculty members to undertake research projects getting grants from various funding

agencies and to enhance the interactions between researchers to cater to interdisciplinary developments. Currently 26 Research scholars have been registered and pursuing their doctoral degree under 5 eligible teachers. Also 4 scholars have completed their doctoral degree during the academic year under the supervision of our eligible teachers.

Institution's Innovation Council (IIC): The Institution had taken up many initiatives to create a vibrant local innovation system through Ministry of Education, Govt. of India (MIC) for the purpose of developing cognitive ability for the technology enhancement among students. This council of our Institution had organized totally 23 activities including IIC Calendar activities, Self-driven activities and Celebration activities. IIC had certified our Institution with 3 Star rating.

Collaborative Research: MOU had been signed with MaxCADD, Coimbatore on March 16, 2021. MaxCADD works on Additive manufacturing and our Institution on collaboration with the institute is to develop many 3D printed models. This will enhance Institute Industry interactions and transfer of knowledge among the stakeholders.

Publication: The Institute is publishing the International Journal of Applied Science & Technology (IJASE) to cater the specific needs of Industrial professionals, academicians and researchers.

File Description	Documents
Upload any additional information	View File
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

22

File Description	Documents
Report of the event	View File
Any additional information	No File Uploaded
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

8

File Description	Documents
URL to the research page on HEI website	http://www.mahendracollege.com/research_integrity.php?research&research_integrity
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc (Data Template)	View File
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

24

File Description	Documents
Any additional information	No File Uploaded
List of research papers by title, author, department, name and year of publication (Data Template)	View 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

papers in national/ international conference proceedings year wise during year

22

File Description	Documents
Any additional information	View File
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

Serving the neighborhood community is a critical component of a socially responsible institution and Mahendra College of Engineering (MCE) is committed to social responsibilities. The Institution encourages promotion of community services through setting up various forums and cells to guide the students in these directions. The National Service Scheme (NSS) Unit, National Cadet Corps (NCC) Unit and Youth Red Cross (YRC) Unit of MCE has become an important tool in sensitizing students and ensuring their direct participation in various social activities in and around Salem, which is improving the skills of students individually and towards leadership aspects.

NSS Unit: To create an impact on social well being and social awareness, the Institution had taken effective measures in conducting Awareness program on Acquired Immune Deficiency Syndrome (AIDS) which had enabled students to present posters on AIDS and Essay competition on the causes and effects of AIDS. About 200 students have actively participated in the program and our Institution is awarded with Recognition certificate from Primary Health Centre, Karipatti on 2.12.2020 for organizing this Awareness Program on Acquired Immune Deficiency Syndrome (AIDS).

YRC Unit: YRC Unit of MCE had organized 2 webinars on National Pollution Control Day and National Pulse Polio Day with around 100 participants in each webinar.

NCC Unit: 9 students of our Institution have attended NCC Annual Training Camp at KSR College of Engineering, Tiruchengode, from 29.11.2021 to 05.12.2021

File Description	Documents
Paste link for additional information	http://www.mahendracollege.com/nss.php
Upload any additional information	View File

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

1

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

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/ YRC etc., during the year

5

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 Swachh Bharat, AIDs awareness, Gender issue etc. year wise during year

762

File Description	Documents
Report of the event	View File
Any additional information	No File Uploaded
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	View File

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

31

File Description	Documents
e-copies of related Document	View File
Any additional information	View File
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

6

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	View File
Any additional information	No File Uploaded
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	View 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.

The Institution has a policy for the creation and enhancement of infrastructure depending on the requirements of any change in the curriculum, student admission, and introduction of any additional courses. Under IQAC, College has appointed a committee for infrastructure and learning resources involving senior staff and student members on the committee.

The institution facilitates smart learning through smart classrooms. Presently, there are 52 classrooms equipped with WIFI facilities, furnished, and well-ventilated. The classrooms are also well illuminated. Classrooms are maintained as per norms for proper visibility and audibility. The classrooms are equipped with adequate furniture, a board, projectors, fans, lights, and power backup. 33 classrooms are provided with LCD projectors and LAN// Wi-Fi connectivity. The institution is constantly updating this number. The college has 4 seminar halls and 1 conference hall to conduct seminars, conferences, guest lectures, and workshops for students and faculty. All seminar halls have adequate seating capacity, and these are equipped with LCD projectors, whiteboards, raised platforms, and a public-address system with internet ease.

Further, there are 7 computer labs having 646 computers with internet and the latest computing equipment. Each department is having desktops having internet connectivity.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

Cultural Activities

To explore and nourish the hidden talents among the students, every year institution organizes various cultural events like dance, singing, skits, Debate, Street Play, Fireless cooking, Fashion show etc.,. The institution has an excellent sound and music system. The Institution is also taken the initiative to create many students clubs to involve the students in club activities.

Facilities for Sports

The institution motivates the students to participate in various sports activities to maintain a healthy atmosphere and to keep the students fit. The playground has many sports fields like basketball, volleyball, Football, Handball, Kabaddi, Kho-Kho, Cricket, Netball, and Athletic track. Apart from outdoor games, Institution has made available indoor games such as Table tennis, carrom, and chess.

C. Yoga and Meditation

The Yoga is conducted for students through the Yoga club which was established in the year 2016. Yoga day is celebrated every year. Students are encouraged to perform yoga during college cultural events and they take part in competitions and bring laurels and plaudits to the institution.

D. Gymnasium

The Institution runs various activities of student welfare which includes well maintained gymnasium housing various equipments for keeping the body fit.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

34

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

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 (INR in lakhs)

88.8334

File Description	Documents
Upload any additional information	View File
Upload audited utilization statements	View File
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)

The main aim of the library is to provide the right source to the right user at right time. The collection of library

includes Books, Journals, Magazines, Newspapers, Project documents, Back volumes, and CDs/DVDs in the field of Management, Science, Engineering, and Technology.

Library automation and computerization

- A Book database is created in the computer and is entered in the accession register as also for the journals/magazines which are updated for any additions or deletions.
- A student database is created in the computer with the roll numbers, student name, and a number of tokens.
- A staff database is created in the system with name, membership number, token number, and department.
- After the physical segregation of books under various disciplines, the same is carried out in the computer system program with interlinking accession numbers and call numbers.
- When books are issued, it is also entered into the computer. The member's number is entered and the accession number of the book or magazine borrowed by the member along with the date of issue and the due date. Book renewal can also be done in the same way.
- Books can be retrieved either if the author is known or if the title is known. Books can also be retrieved according to any particular subject since all the available books on that particular subject are also displayed.

OPAC

OPAC has different types of searching options like simple, advanced, and Boolean searches. Users can know the status of library material. We have integrated OPAC with digital library access outside the campus by WEB OPAC. MEMBER LOGIN/LOGOUT: software having member log-in and log-out module to authenticate attendance in the library for students and staff with bar-coding option. Can generate log reports according to date, month, year-wise too.

OPEN ACCESS OF ARRANGEMENT OF PRINT AND NON-BOOK MATERIALS

SPECIAL REPORTS

Institute has a rich collection of Special reports in terms of Ph.D. thesis from the other universities which are used by our

students and teachers for their research work. The college is a member of INFLIBNET for Shodhganga using this membership we are accessing more thesis from various college staff. Record of old project reports of students is maintained in the departmental library and college library. There are many project reports stocked in the college library for the sake of students and to motivate the students

E-Access to Engineering e-books and e-journals are subscribed to and made available to students. College provides online access to a number of refereed journals to promote research culture. The library has acknowledged Elsevier certificate for enriching years of relationship with online resources.

DELNET facilitates 500+ e-Journals and 2000+ e-books are available. There are more e-journals are subscribed from Springer comprising electrical, electronics, mechanical, and computer-related subjects. By using this faculty members published various journals and conference papers. The College is a member of INFLIBNET for 'E-shodh-sindhu'.

Digital Library facilities are also available in our institution library. We are accessing more e-books and e-journals through open source.

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

4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources	A. Any 4 or more of the above
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File Description	Documents
Upload any additional information	View File
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)**

20.781

File Description	Documents
Any additional information	View File
Audited statements of accounts	View File
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**

280

File Description	Documents
Any additional information	No File Uploaded
Details of library usage by teachers and students	View File

4.3 - IT Infrastructure**4.3.1 - Institution frequently updates its IT facilities including Wi-Fi**

The IT Infrastructure and associated facilities have been augmented periodically, and when there is a requirement, introduce new technology to the students and faculty. The computer system's RAM graphics card and other hardware items are upgraded as per the needs and requirements of the various departments. All open source software, and licensed software is available

The Institution provides full-fledged computing facilities with necessary software and Wi-Fi facilities in the campus. Totally 646 computers are available across various laboratories and departments for the benefit of students and faculty members. These computers are upgraded every year.

Data Centre: Data Centre is well equipped with high-end equipment DHCP Server, DNS Server, Firewall Server, Storage Server, Ubuntu server, Communication server Cisco 2800 series router, Network Video Recorder, Wireless Authentication Server, Web portal Server.

Wi-Fi: The Institution is networked with fiber optic cables, 24 hour Internet connectivity at the speed of 64 Mbps and about 12 Wi-Fi points spread over the entire campus of All-Academic Blocks, Auditorium, Library, Seminar Halls and Hostels (Girls and Boys), etc., with wired and wireless components.

- Stand alone facility available
- LAN facility

Information Security: M470 Watch Guard scans for any intrusion prevention system (IPS) network traffic to actively block attacks. Entire network is protected with Quick heal Endpoint Security antivirus software. Domain Controller login features enables us to safeguard any unauthorized access to critical data of professors, resources used in the network and to effectively track the system accessed/last login etc.

Network Facility: The institution has a 24X7 Wi-Fi facility in the college campus for the student and faculty members. Watch Guard Firebox M470 firewall is used for cyber security and network management. These M470 firewalls are rated for 201-300 users, 19.6 GBPS firewall throughput, and 5.2 GBPS VPN throughput.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.3.2 - Number of Computers

646

File Description	Documents
Upload any additional information	View File
List of Computers	View File

4.3.3 - Bandwidth of internet connection in the Institution	A. ? 50MBPS
File Description	Documents
Upload any additional Information	View File
Details of available bandwidth of internet connection in the Institution	View File
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)	
38.21843	
File Description	Documents
Upload any additional information	View File
Audited statements of accounts	View File
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.	
<p>The college has appointed several personnel for maintaining the infrastructure by way of building maintenance, transport, furniture and generator operator in case if the power shuts down. Separate Complaint registers are maintained for various services like electrical, plumbing, housekeeping, transport, canteen etc.</p> <p>CLASSROOMS</p> <p>Institution has a supervisor who regularly maintains the boards, benches, fans and lights. Class</p>	

SPORTS

Physical Education Director is responsible for maintenance of sports goods, play fields and other items related to the Physical Education. Stock verification is done periodically at the end of every year which gives information about working status of items and defective items.

IT MAINTENANCE

- System Admin and Technical Team members are responsible for maintenance of computers and network facility of the institution.
- Complaints are accepted through email (support@mahendra.info) and rectified the problems immediately.
- Antivirus is also procured and installed in all Servers and desktops for the maintenance of computers in the college.

LIBRARY MAINTENANCE

Library maintenance is computerized and automated with regular/constant up-keeping. Library committee follows up with the librarian and regularly monitors the library to ensure and maintain all text books, reference books, articles, competitive examination books, magazines, journals, e- magazines, e-books and e-journals.

Maintenance of Electrical and Electronics Equipments:

- Regular check up of equipment is carried out at the end of every semester.
- Breakdown register is maintained in the laboratories.
- Maintenance of computers is taken care by IT and COMPUTER department.
- Major repairs are outsourced by following the procedure of the institute.
- The faulty trainer kits are serviced by service engineers of specified companies. The measuring Instruments are calibrated regularly by standards companies.

Heads of the Departments in consultation with the lab - in charges and technical staff oversee the maintenance of the academic facilities pertaining to their laboratories, workshops and classrooms. Calibration of the meters and equipment is done

by third- party companies regularly, to ensure accurate reading for the experiments conducted in the laboratories.

TRANSPORTATION:

The transport in-charge maintains college vehicles and obtains necessary clearance certificates, insurance, and permits from the RTA.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

1341

File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	View File
Upload any additional information	No File Uploaded
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

323

File Description	Documents
Upload any additional information	View File
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://mahendracollege.com/downloads/5.1.3%20Capacity%20building%20and%20skill.pdf
Any additional information	View File
Details of capability building and skills enhancement initiatives (Data Template)	View File

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

980

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

980

File Description	Documents
Any additional information	View File
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	View File

<p>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</p>	<p>A. All of the above</p>
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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	View File
Details of student grievances including sexual harassment and ragging cases	View File

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

260

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

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

28

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

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

10

File Description	Documents
Upload supporting data for the same	View File
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 activities at university/state/ national / international level (award for a team event should be counted as one) during the year.

1

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

Principal and the Head of the Department address the student representatives from each year and each class to obtain feedback and suggestions regarding academic and co-curricular activities directly. The feedback is taken by the HoD at the end of each semester and a separate student council meeting is conducted by the Principal to know the difficulties faced by the students. This feedback is then shared with concern faculty members for remedial actions. Apart from presenting the feedback, the students are also involved in the following active committees and association bodies of the institution.

Name of the Committee

Responsibilities

Department Association

Every department in the institution has its own association through which the students are allowed to organize several events like workshop, seminars, technical contest, symposiums, conference, etc. Student act as office bearers of the association.

Board of Studies

Students are significant stake-holders to provide curriculum feedback in order to modify the syllabi for the upcoming regulations.

Academic council

Students representative provide feedback and suggestions for the academic activities.

Industry-Institute Interaction Cell

Students take initiative in organizing Industrial Visit, Internship, Hands on training, etc.

Internal Quality Assurance Cell

Students provide feedback about the quality of various activities in the institution.

Anti ragging Committee

Student representatives ensure the ragging-free environment in the institution

Women Empowerment Cell

Students take initiative in organizing seminars, Guest lecturers etc., for the empowerment of women.

Extension Activities NCC,NSS,YRC

NSS volunteers work in rural areas, adopted villages and school to the serving the cause of society through survey, education and health awareness programme

Internal Complaints Committee (Vishaka Committee)

opportunity for the students to represent their feedback

R & D Committee

Library Committee

Hostel Committee

Boys

Girls

College Magazine Committee

opportunity for the students to represent their feedback

Mentoring Committee

Sports Committee

Website Committee

Training & Placement Cell

Alumni Association

Entrepreneurship Development Cell (EDC)

Clubs -

i. Motivational Club

ii. Go-green Club

iii. Yoga Club

iv. Literary Club

v. NDLI Club

vi. Fine arts Club

vii. Tecnovation Club

Institution Innovation Council (IIC)

Student Council

Unnat Bharath Abhiyan

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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**

8

File Description	Documents
Report of the event	View File
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

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

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

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

Alumni Contribution:

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

Above alumni activities are affected this year due to the COVID19 pandemic. The contribution of Alumni is reflecting in the Audited Income & Expenditure Statement under the head "Miscellaneous Income"

File Description	Documents
Paste link for additional information	https://mahendracollege.com/downloads/5.4.1%20Alumni.pdf
Upload any additional information	View File

5.4.2 - Alumni contribution during the year (INR in Lakhs)	C. 3 Lakhs - 4Lakhs
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File Description	Documents
Upload any additional information	View File

GOVERNANCE, LEADERSHIP AND MANAGEMENT**6.1 - Institutional Vision and Leadership**

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

Vision

Mahendra College of Engineering is committed to be a leader in Higher Education achieving excellence through world class

learning environment for Science and Technology with a blend of advanced research to create ethical and competent professionals.

Mission

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

The Philanthropic Founder Chairman, Mr.M.G.Bharathkumar has a deep vision of serving the society with the motto "Service to the nation in the cause of Education".

Based on the recommendations of the Governing Council, commencement of new courses, expansion of infrastructure, implementation of strategy and other vital decisions are discussed with the Principal and Heads of departments. Management headed by the Chairman ensures that periodical meetings of Governing Council are conducted to discuss policy matters.

Institution has a perspective plan for development. Modernization of existing facilities, implementation of new ventures for R&D, expansion of infrastructure facilities like laboratories, library resources, classrooms, meeting halls and sports facilities are important aspects in the annual plan of Institution.

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

Principal and Dean-Academics take decisions in the academic matters conforming to the regulations of the affiliating University.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

Decentralization: The institution functions with a decentralized governance system. Heads of department have been permitted with the authority of deciding the activities and delegating responsibilities to the staff members. Every department decides individually on timetable, subject allocation, purchase and maintenance of equipment and consumables, organizing conferences, symposia, guest lectures and workshops and recommends industrial visits, in-plant trainings, internships and MoUs in consultation with Department Advisory Committee. Heads of Department have the powers to plan their academic, co-curricular and Extra-curricular activities, technical events, Resource Persons to be invited etc., aligning with the Academic Calendar of the Institution. Principal and Heads of Department are given financial powers up to Rs.25000 and Rs.5000 respectively for the purchase of consumables and any other contingency.

Participative management: Institution is functioning effectively with the culture of participative management which enables the faculty and students to give their suggestions for improvement. All the academic activities are decentralized and decisions are taken based on discussion and deliberations in the class committee meetings, department meetings, faculty meetings, HODs' meetings with Principal and HODs meetings with Chairman. Principal coordinates with the departments, administration and management. Participative management provides extensive scope for having collaboration among the departments and ensures the quality of planning and implementation of all the activities in the institution uniformly. Management, Principal, Dean-Academics, Heads of Department, Teaching and Non-teaching Staff and administrative staff work towards a common goal of achieving Excellence.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

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

With the intention of providing ample avenues, enhancing the infrastructure facilities in the form of new construction to accommodate classrooms, laboratories, auditorium and library facilities have been in the agenda of the continuous process. Though the needed facilities are in place as per requirements and regulations of affiliating university, they are enriched with the aim of fulfilling the goals in the strategic plans which go beyond the syllabus as well to make the student fraternity not only professionals, but also responsible citizens who can contribute for the development of society and the nation.

In the academic year 2020-21,

- Library reading area space in increased.
- A new Centre of Excellence for "Internet of Things" established with new Equipments.
- Building space for Community Radio Station Studio is created and a Communication tower for the same is installed.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	http://mahendracollege.com/downloads/Perspective%20Plan.pdf
Upload any additional information	View File

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.

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

Various Committees at the Institute level:

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

Principal is the chairperson of administrative and academic activities of the institution. Heads of department take the responsibility of executing all administrative and academic activities of the department. HoDs possess both the academic and the financial autonomy. They are entitled to take decisions as per the needs of the situations in emergencies and get them ratified by the Head of the Institution subsequently. Principal, HoDs and Team leaders are sanctioned imprest amount, for ensuring the execution of multiple events scheduled.

Recruitment of teaching, non teaching and office administration staff is planned at the end of every academic year as per the requirements of the next academic year. Staff appraisal system is used for deciding the promotions.

File Description	Documents
Paste link for additional information	http://mahendracollege.com/downloads/HR-Policy.pdf
Link to Organogram of the institution webpage	https://mahendracollege.com/downloads/6.2.2_Organization_Structure.pdf
Upload any additional information	View File

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	View File
Screen shots of user inter faces	View File
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 measures for teaching staff

- Financial support to the staff members affected by COVID 19 Virus.
- Free transport facilities.
- Waiver of fees for teachers' children in the Institution.
- Medical leave and Maternity leave.
- Supporting for education of the children of the teachers in the group institutions.
- Marriage gifts with the sanction of one week leave.
- Gifts and mementoes during Teachers' Day celebrations.
- Sponsoring for attending conference, workshops and FDPs.
- Incentive for publication of papers / research articles.
- Reward for producing University Ranks.

- Cash awards for academic excellence / 100% pass.
- Special Study Leave (SSL) to pursue higher education.
- Faculty Retreat.
- Subsidized canteen fares.
- Group Insurance.

Welfare schemes for non-teaching staff

- Financial support to the staff members affected by COVID 19 Virus.
- Employees State Insurance (ESI) Scheme
- Educational support to the children of the staff.
- Marriage gifts with the sanction of one week leave.
- Granting medical leave / maternity leave.
- Free transport facilities.
- Special Study Leave (SSL) for higher studies.
- Incentive for attending orientation & Skill Development programmes
- Faculty Retreat.
- Incentive for dress materials
- Incentive for vehicle utilization or transport allowance for drivers
- Subsidized canteen fares
- Group Insurance

File Description	Documents
Paste link for additional information	http://mahendracollege.com/downloads/HR-Policy.pdf
Upload any additional information	View File

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

112

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

37

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)	View 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

113

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	View File
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

The management evaluates the performance of the faculty based on teaching, research, participation in department activities, ability to work in a team, arranging co-curricular and extracurricular activities and publications. The appraisal system motivates the staff to excel and put in the best of their efforts.

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

A team comprising senior faculty, both internal and external, evaluate the staff, analyzing the following factors.

- Experience.
- Skill up gradation through participation in Conferences, Workshops, Faculty Development programs.
- Innovative teaching practices.
- Pursuing higher studies - Ph.D / PDF
- Research activities and obtaining patents.
- Results produced in the University Examinations.
- Publications in the Scopus indexed / impact factor / e - journals & conference proceedings.
- Publication of books.
- Consultancy & Sponsored research projects.
- Mentoring and Counseling techniques.
- Feedback from HOD and Principal.
- Feedback from students.

- Awards - state and national level.
- Initiatives in conducting co-curricular and extra-curricular activities

Following factors are considered in the appraisal system for non-teaching staff.

- Experience.
- Skill up gradation through Orientation Programs, Refresher Course, Short Term Courses.
- Higher Studies.
- Feedback from HOD and Principal.
- Active participation in team work.
- Work Discipline.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

Periodical Internal Audits are performed by officials deputed from Trust office and reports are prepared before the Auditor's external audit which normally happens after the closure of the accounts in all respects. External Audit is done by the Statutory Auditors after 30th June of the subsequent year.

During the course of Internal Audit, all required steps are taken to regularize the accounts and to obtain confirmations for the credit balances, to collect documentary evidences wherever necessary in respect of payments, compliances of T.D.S. and Statutory Formalities and Reconciliation of unit wise balances with the Control Accounts and Bank Reconciliations.

Subsequently, External Statutory Audit is conducted by the auditors and the final audit report with audit findings are submitted to the Management. The consolidation of the findings

of the Institutions with Trust Central office will be completed and the annual returns will be submitted to Income tax Authorities, Registrar of Societies, Tamil Nadu and to other authorities concerned.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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)

1

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

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

Funds Mobilization:

Fees Collection

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

Term Loan and Hire Purchase Loans

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

Government Grants and Sponsorship Receipts

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

Corpus Donation of Trust and Trust Contribution

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

Optimal Utilization

Recurring Expenses

Salary to staff, academic activities, maintenance and other expenses are done with fees collection.

Infrastructural development facilities and Building construction works

Management allocates budget to create and upgrade the infrastructure facilities. Loans received from banks are judiciously utilized for the same.

Institution applies and gets grants from AICTE schemes for purchase of modern lab equipments, purchase of latest version software and others.

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

Research and project activities

Institution is committed to achieve excellence in research. Faculty members carry out many R&D projects using the grants received from various funding agencies.

Seminars, Conferences, FDPs and other co-curricular activities:

Institution conducts the above events regularly on various emerging technologies, innovations, research changes and needs of the society. These events are conducted from the funds received from the Professional bodies & sponsoring agencies.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	View File

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

IQAC insisted through the faculty members on registering for NPTEL Online courses by the students:

During the lockdown periods of the COVID 19 pandemic, students should not lose the learning habit and techniques. Keeping this in mind, IQAC insisted the members to encourage and promote the online courses in a big way. Faculty members highlighted the advantage of registering and learning the NPTEL courses to the students. This effort paid off and many students took up the online courses and got benefitted.

IQAC insisted on the skill development of Faculty and staff:

During the lockdown periods of the COVID 19 pandemic, Faculty and staff members are instructed to take utmost care in staying physically healthy and safe. In addition, their mental health shall also be taken care by engaging their mind effectively. This is successfully achieved by attending Webinars of their choice and passion. All the faculty and staff members have attended several online webinars and benefitted in a tremendous manner. IQAC through various meetings continuously monitored this process.

File Description	Documents
Paste link for additional information	https://mahendracollege.com/igac.php?activities&igac
Upload any additional information	View File

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

Effective use of emerging technologies for teaching and learning is highly significant in the COVID 19 pandemic period. Often one of the biggest barriers in incorporating emerging technologies is the fear of how to implement them effectively. Not every faculty member is tech savvy or understands the full potential of how the latest technology in education can drive the success of students. Particularly, fears are high on implementing these emerging technologies in education with the social distancing requirements posed by COVID-19.

Understanding this challenging situation. IQAC of the Institution instructed the departments to organize several awareness programs to the faculty, staff and students on effective use of online platforms for not only teaching but also two way communication, assessment and evaluation. Resource persons from Industry and Academia are invited to present their expert lectures to the students. This initiative by IQAC had a tremendous impact, keeping the faculty and students in a mindset as if they were physically present in the Institution.

In addition to the teaching methodology, IQAC has also suggested effective means of evaluating the students. IQAC suggested open book examinations for the evaluation of students. Faculty members were instructed to prepare question papers in a challenging manner so that the answers cannot be written directly from any text book, but the students have to think and find the solutions based on their understanding of the concepts. This initiative brought a positive change and students responded well.

File Description	Documents
Paste link for additional information	https://mahendracollege.com/igac.php?activities&igac
Upload any additional information	View File

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)

A. All of the above

File Description	Documents
Paste web link of Annual reports of Institution	https://mahendracollege.com/igac.php?activities&igac
Upload e-copies of the accreditations and certifications	View File
Upload any additional information	View File
Upload details of Quality assurance initiatives of the institution (Data Template)	View File

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

The institution has absolutely no conciliation in the security issues. Right from the inception of the college, the management has taken serious steps to have the security to the entire campus. The security personnel monitor the movements in the campus round the clock. CCTV cameras have been installed in main places like entrance gate, library, auditorium, office etc., for the safety of the students. These security guards near the

trancephysicallycheckthevehiclesandbelongingsduring entries to the campus and exit from the campus. The college has been fenced with concrete wall to protect any intrusion to the campus from outside. One of the main objectives of the institution is to promote education that would be sensitive to the needs of the various sections of society with special emphasis on gender equality and gender sensitivity. Students of both the genders are given equal opportunities to develop into responsible citizens of the future. The institution constantly makes efforts to maintain gender balance among the faculty members and students. Departments headed by men and women are equally balanced. FemaleTeaching and non-teaching faculty members are equal in number with the other gender. Similarly,th enumberofwomenintheadministrativeandhousekeepingdepartmentsequalwiththe male counterparts. Women empowerment cell deals with all the grievances faced by girl students and lady faculties.It regularly addresses the complaints filed the girl students and provide a safe environment for them. The women's club activities are planned, organized and executed by a committee comprising of 25 girl students representing all the departments with the guidance of the women faculty members. Apart from Womens' empowerment club, there are other student clubs vibrant in the institution comprising both the gender.There is a separate Counselling Room for counseling the students who needs moral support and care. Dr.Padmaja is the incharge for counselling cell in our Institution. This Counselling cell periodically meets the needy students for effective counseling. Local guardians take care ofthe students regularly. They help the students to solve their personal and academic problems to the possible extent. Students will be monitored and counseled on academic performances, attendance, regularity, punctuality, disciplinary matters, safety and security measures etc. The students are free to meet their local guardians any time to share and discuss their problems. The college has a disciplinary committee with a senior professor as chairperson and few experienced teachers as members. The committee gives utmost importance for maintaining student discipline in the class room as well as in the campus. In case a student violates any disciplinary regulations of the college, the matter is referred to the committee. After proper enquiry, the committee sends its reports to Principal recommending suitable action. There is a Centralized Counseling Cell in the institution. Students will be counseled on a need basis by the centralized Counselor. Regular Events for promotion of Gender Equity has been planned and executed by inviting various cheif guests. Women empowerment cell and Anti-Ragging committee are also

actively monitoring and promoting safety aspects and empowerment aspects of girl students.

File Description	Documents
Annual gender sensitization action plan	https://mahendracollege.com/downloads/7.1.1.Gender_Equity_programs.pdf
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://www.mahendracollege.com/vishaka_committee.php?facilities&vishaka_committee

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

A. 4 or All of the above

File Description	Documents
Geo tagged Photographs	View File
Any other relevant information	View File

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

Response:

To reduce waste in the institution, students and staff are educated on proper waste management practices through lectures, advertisement on notice boards, displaying slogan boards in the campus. The total solid waste collected in the campus is around 15 Kg/day on an average from tree leaves, paper cups, waste paper etc. The waste is segregated at source by providing separate dustbins for Bio-degradable and non-bio-degradable solid wastes. Single sided used papers are reused for writing and printing in all departments. Food waste in the canteen is monitored and displayed to the students using a white board just to create an awareness on wastage done. This could help

the students to avoid consciously the wastage of food.

Use of plastics is banned inside the campus. Students are requested to bring lunch and drinking water in stainless steel containers. However recyclable plastics with higher thickness are permitted. Canteen contractor is strictly instructed to avoid plastic cups. Solid waste is collected and given to the vendor at regular intervals. Metal and wooden waste is stored and given to authorized scrap agents for further processing. Glass bottles are reused in the laboratories.

Sanitary napkins are disposed of using incineration process through the incinerators kept at ladies toilets

Liquid waste management:

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

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

E-waste management:

Use of personal mobile phones, memory cards etc. are restricted in the campus for students.

The campus has centralized facility to collect e-waste from the laboratories through housekeeping personnel. E-wastes such as computers, laptops, scanner, printers, bread-boards used for project purposes etc. if generated are collected centrally & disposed off. Old monitors and CPUs are repaired and reused.

The college has taken steps to optimize its repository of computers through reassembling, modification and upgradation by a team of IT Administrator, faculty members and students of Computer Science Engineering and Information Technology. This has been a critical endeavour towards E-waste management ensuring that no discarded computers or printers are lying idle in the office premises.

E-waste from laboratories is properly collected and is given to the licensed recycling Agency, reused wherever possible,

donated and sold, if possible. Non-working computers, monitors, and printers are discarded and scrapped on a systematic basis. Some parts useful for other systems are kept aside for future use. Students are also inculcated on awareness and education about the handling of E-Waste.

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

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

File Description	Documents
Geo tagged photos / videos of the facilities	View File
Various policy documents / decisions circulated for implementation	View File
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	View File
Certification by the auditing agency	View File
Certificates of the awards received	No File Uploaded
Any other relevant information	No File Uploaded

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, screen-reading software, mechanized equipment 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading

A. Any 4 or all of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	View File
Policy documents and information brochures on the support to be provided	View File
Details of the Software procured for providing the assistance	View File
Any other relevant information	View File

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).

Response:

Serving the neighborhood community is a critical component of a socially responsible institution and Mahendra College of Engineering (MCE) is committed to social responsibilities. The Institution encourages promotion of community services through setting up various forums and cells to guide the students in these directions. The National Service Scheme (NSS) Unit, National Cadet Corps (NCC) Unit and Youth Red Cross (YRC) Unit of MCE has become an important tool in sensitizing students and ensuring their direct participation in various social activities in and around Salem, which is improving the skills of students individually and towards leadership aspects.

NSS Unit: To create an impact on social well being and social awareness, the Institution had taken effective measures in conducting Awareness program on Acquired Immune Deficiency Syndrome (AIDS) which had enabled students to present posters on AIDS and Essay competition on the causes and effects of AIDS. About 200 students have actively participated in the program and our Institution is awarded with Recognition certificate from Primary Health Centre, Karipatti on 2.12.2020 for organizing this Awareness Program on Acquired Immune Deficiency Syndrome (AIDS).

YRC Unit: YRC Unit of MCE had organized 2 webinars on National Pollution Control Day and National Pulse Polio Day with around 100 participants in each webinar. NCC Unit: 9 students of our Institution have attended NCC Annual Training Camp at KSR

College of Engineering, Tiruchengode, from 29.11.2021 to 05.12.2021

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View File
Any other relevant information	No File Uploaded

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

A course on human values and professional ethics is offered in the Curriculum for all the branch of engineering students. The students are being inculcated with the knowledge on human values like moral values, integrity and ethics. Students are being encouraged and motivated to be honest in their professional career. The course also stresses the role of engineers as a responsible experimenter with proper code of ethics with a balanced outlook on law. The students are being given regular programs with motivational speakers and have been brainstormed with the value rights and duties of being a responsible citizen of the country. Leaders of the institution give an awareness on values rights duties and responsibilities of citizens. During the voter's day celebrations, the students are educated on the importance of voting. National constitution day of the country is celebrated by the students and faculty members of MCE to help them understand the duties and responsibilities of being a good citizen of the country.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	https://mahendracollege.com/downloads/7_1_9_constitutional_obligations.pdf
Any other relevant information	Nil

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and

A. All of the above

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

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

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

National Energy Conservation day: Celebrated every year on the 14th of December, the National Energy Conservation day is a reminder of India's commitment to clean energy and combating climate change. Institution celebrated energy conservation day. Department of Electrical and Electronics Engineering, Mahendra College of Engineering, Salem Campus, Minnampalli, Salem had organized a Poster Design & Presentation Contest on "National Energy Conservation Day-2021" on 14.12.2021. The students presented posters depicting various ways to conserve energy.

National Education Day: The purpose of celebrating National Education Day should be to strengthen our educational institutions. It is to remind us to keep raising the quality of education to greater heights. It should be an occasion to remember Maulana Azad's contribution majorly for two reasons. First, in laying the foundations of the education system in an independent India. Second, to evaluate our current performance in this field. So on this day, all people who are involved in the field of education should come together to seek ways to

advance India's prestige in the world, as a knowledge society and to focus on how to educate our people.

Institution celebrated National Education day to help the students realize the importance of Education.

National Pollution Control Day: December 2 is observed as National Pollution Control Day every year. The day is observed in the memory of those who have lost their lives in the Bhopal Gas tragedy on the night of December 2nd and 3rd, 1984.

Institution celebrated National Pollution control day to bring the awareness among the students about pollution control.

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

7.2 - Best Practices

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

PRACTICE- I: KNOWLEDGE SHARING FORUM FOR IDEA TANK, INNOVATION AND PATENTS.

Goals:

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

Objective:

1. To keep the faculty members updated on current trends related to innovation, Research and patents in the field of Science, Engineering and Technology
2. To increase the interaction level of the faculty members of multiple-disciplinary nature under a common forum.

3. To keep the faculty members updated on emerging technologies and facilitate knowledge transfer to the faculty members outside their domain.
4. To enhance the presentation, teaching, learning and listening skills of the faculty members

The Context

Knowledge sharing means the exchange of faculty members' knowledge, skills, and experiences with fellow members related to the research, innovation, ideas and patents. Faculty members will be disseminating the knowledge in the above said areas to improve the research culture leading to publishing research articles and patents. It ensures that the knowledge within an organization is available for faculty members and its benefits include the art of getting published their patents and research articles in the emerging areas and peer reviewed journals

The Practice

- Faculty will give their technical presentations as per the regular schedule
- Recent technological developments can be selected.
- Topic may include journals of particular domain, patent laws, patent drafting for beginners.
- End of the session there will be a feed back to evaluate the understanding of the presentation.

Evidence of success

1. Confidence level of the staff members has improved. Through this event, the areas of interest of the faculty member who presented their topics are also well exhibited and their strengths can be well utilized

2. Has created a competitive environment among the staff to make better presentations.

3. It has resulted in increase in the number of publications by our faculty and increase in the number of patents registered by them.

Problems Encountered and Resources required.

1. Allocation to time on a regular basis was a major problem encountered.

PRACTICE- II: RECORDED VIDEO LECTURES BY FACULTY

Goals:

1. To create data base of videos of faculty teaching engineering subjects
2. To facilitate the students to understand better.
3. To increase understanding level of subjects for the students.

Objective:

1. The student can learn whenever he wants to learn
2. All students can learn at their own pace which will maximize the result of learning
3. To help the student understand the subject better and to help him score better marks

The Context

In general, the human mind is not capable of focusing continuously for more than 10 to 15 min but as a general practice we tend to take our classes continuously for 50 min. It is practically very difficult for all the learners to understand the subject at this pace. Hence, we want to give recorded lectures to the students to help them understand better. The student can pause the video incase of any doubts and can browse the internet to clear their doubts and can continue their classes. This will help the engineers learn their topics at their own pace.

The Practice

- Faculty will give their recorded lectures
- Difficult topics will be covered and uploaded in the systems present in library
- Students can come to library and see and hear the videolectures when they are free.

Evidence of success

- Confidence level of the students has improved.
- Through this event, the areas of interest of the faculty memberwho presented their topics are also well exhibited and their strengths can bewell utilized
- Has created a competitive environment among the staff to

make better video presentations.

- Faculty can view their own video presentations and can improve it regularly and can make it a better version of themselves.

Problems Encountered and Resources required.

1. Allocation to time on a regular basis was a major problem encountered.

Information on Video Lectures Sample on the college website :https://www.mahendracollege.com/video_lectures.php?facilities&videolectures

File Description	Documents
Best practices in the Institutional website	https://mahendracollege.com/downloads/bestpractices_gallery.pdf
Any other relevant information	Nil

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

MAHENDRA EQUIP 360° is a distinctive quality practice followed in the Institution to bring out 360° growth in every student. The slow learners will be given with additional coaching with the extra care to elevate as advanced learners. All the advanced learners will undergo a practical enriched training program in core Industries for 360 hours.

The process for this program is as follows:

1. Department will have the panel of industries for this program.
2. MoU will be signed by the Department with the Industries.
3. Students can also choose research organizations and Government laboratories for the training in addition to the industries.
4. Students will be allotted a Particular Industry for the training in every semester at least for 60 hours to the maximum of 90 hours.
5. The students shall report the type and progress of the

training to the guide in regular intervals and seek his/her advice

6. Upon successful completion of training in every semester, the student needs to submit a report to the HoD concerned.
7. This will be practiced from third semester to seventh semester to cover 360 hours of training. Successful completion of training will yield certification from both Institute and Industry. The students will get the opportunity to do their final year project in the industry where they trained.

The Department shall nominate staff member(s) to facilitate, guide and supervise students under this scheme. The outcome of this programme will create industry ready Engineers with appropriate skill set and will pave a path for job opportunities in the industry where they trained. Thus slow learners will be properly moulded to become advance learners by remedial classes and advanced learners will be groomed with the leadership qualities industrial exposures to become society inclined industry ready ethics oriented professionals.

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

7.3.2 - Plan of action for the next academic year

- To secure at least one university rank in 2021 - 22.
- To achieve at least 90% placement for the eligible students.
- To develop at least 5 entrepreneurs from the 2022 outgoing batch.
- To register a minimum of 5 patents.
- To motivate and ensure at least 30% of the faculty to publish research papers in journals with high impact factor.
- To secure at least 2 funded projects from Government organizations.
- To conduct a minimum of 20 programs with Industry Collaboration during the year.
- To Prepare at least 10% of students for Competitive exams

(GATE, UPSC, etc)

In addition to the above, College Management is focusing on the following key areas to achieve overall development of the Institution.

- Admissions: Students for UG, PG, Ph.D programme from other states, NRI and PIO.
- Faculty quality and qualification enhancement.
- Faculty retention
- Centers of Excellence
- National and International Conferences
- Accreditation and ranking (NBA, NAAC, NIRF, ARIIA)
- Achievement in Sports and Cultural activities
- Infrastructural development