



## Yearly Status Report - 2019-2020

### Part A

#### Data of the Institution

|   |  |
|---|--|
| <b>1. Name of the Institution</b>             | MAHENDRA ENGINEERING COLLEGE<br>(AUTONOMOUS)   |
| Name of the head of the Institution           | Dr.R.V.Mahendra Gowda  |
| Designation                                   | Principal  |
| Does the Institution function from own campus | Yes  |
| Phone no/Alternate Phone no.                  | 04288288610  |
| Mobile no.                                    | 6382083091   |
| Registered Email                              | principal@mahendra.info  |
| Alternate Email                               | hodaero@mahendra.info  |
| Address                                       | Mahendra Engineering College<br>(Autonomous), Mahendrapuri,<br>Mallasamudram, Tiruchengode |
| City/Town                                     | Namakkal   |
| State/UT                                      | Tamil Nadu   |

| Pincode  | 637503  |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
|--|---|------|---------------------------------------|-------------|-------------|-------|-------|------|----------------------|----------|--|-------------|-----------|---|---|------|------|-------------|-------------|
| <b>2. Institutional Status</b>   |   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Autonomous Status (Provide date of Conformant of Autonomous Status)  | 17-Jan-2013   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Type of Institution  | Co-education  |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Location   | Rural   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Financial Status   | private   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Name of the IQAC co-ordinator/Director   | Dr.C.T.Sivakumar  |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Phone no/Alternate Phone no.   | 04288288599   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Mobile no.   | 9442130662  |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Registered Email   | sivakumar@mahendra.org  |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Alternate Email  | hodcivil@mahendra.info  |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| <b>3. Website Address</b>  |   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Web-link of the AQAR: (Previous Academic Year)   | <a href="http://mahendra.info/igac.php">http://mahendra.info/igac.php</a>                                   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| <b>4. Whether Academic Calendar prepared during the year</b>   | Yes   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| if yes,whether it is uploaded in the institutional website:<br>Weblink :   | <a href="http://www.mahendra.info/academic_calendar.php">http://www.mahendra.info/academic_calendar.php</a> |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| <b>5. Accrediation Details</b>   |   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| <table border="1"> <thead> <tr> <th rowspan="2">Cycle</th> <th rowspan="2">Grade</th> <th rowspan="2">CGPA</th> <th rowspan="2">Year of Accrediation</th> <th colspan="2">Validity</th> </tr> <tr> <th>Period From</th> <th>Period To</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A</td> <td>3.06</td> <td>2014</td> <td>10-Jul-2014</td> <td>10-Jul-2020</td> </tr> </tbody> </table> |   |      |                                       |             |             | Cycle | Grade | CGPA | Year of Accrediation | Validity |  | Period From | Period To | 1 | A | 3.06 | 2014 | 10-Jul-2014 | 10-Jul-2020 |
| Cycle  | Grade   | CGPA | Year of Accrediation                  | Validity    |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
|  |   |      |                                       | Period From | Period To   |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| 1  | A   | 3.06 | 2014                                  | 10-Jul-2014 | 10-Jul-2020 |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| <b>6. Date of Establishment of IQAC</b>  | 01-Nov-2012   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| <b>7. Internal Quality Assurance System</b>  |   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Quality initiatives by IQAC during the year for promoting quality culture  |   |      |                                       |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |
| Item /Title of the quality initiative by   | Date & Duration   |      | Number of participants/ beneficiaries |             |             |       |       |      |                      |          |  |             |           |   |   |      |      |             |             |

|   |                   |     |
|---|-------------------|-----|
| IQAC  |                   |     |
| Awareness on Academic and Innovation Excellence                       | 28-Sep-2019<br>1  | 4   |
| Agri Expo -CII  | 22-Jun-2019<br>2  | 125 |
| IQAC Auditing   | 08-Jun-2019<br>2  | 200 |
| CII YI awareness - Career Counselling                                 | 07-Aug-2019<br>1  | 85  |
| Orientation on Outcome Based Education                                | 01-Oct-2019<br>1  | 157 |
| Mahendra Foundation for Innovative Research in Science and Technology | 09-Oct-2019<br>1  | 650 |
| Faculty Enrichment Programme Series                                   | 19-Oct-2019<br>7  | 195 |
| Orientation Programme .   | 06-Aug-2019<br>13 | 835 |
| <a href="#">View File</a>   |                   |     |

**8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.**

| Institution/Department/Faculty | Scheme   | Funding Agency | Year of award with duration | Amount  |
|--------------------------------|--|----------------|-----------------------------|---------|
| Mahendra Engineering College   | Support for Entrepreneurial and managerial Development of SME's through Incubators | MSME           | 2018<br>1095                | 2600000 |
| <a href="#">View File</a>      |  |                |                             |         |

**9. Whether composition of IQAC as per latest NAAC guidelines:**

Yes

Upload latest notification of formation of IQAC

[View File](#)

**10. Number of IQAC meetings held during the year :**

3

The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website

Yes

Upload the minutes of meeting and action taken report

[View File](#)

**11. Whether IQAC received funding from any of the funding agency to support its activities**

No

during the year?

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

• Participated in NIRF 2020 . Our institution obtained 29 marks. • Participated in ATAL ranking of institutions on innovations achievements ARIIA 2020 . Ranking between 26 to 50 bandwidth • Quality enhancement programmes organized received 4 star in Institutions Innovation Council IIC • Conducted regular IQAC meeting of internal quality assurance cell IQAC and action taken of previous meeting. The minutes of meeting was uploaded in our institution website timely submission of annual quality assurance report AQAR to NAAC • Feedback from all stakeholders like Students, Teachers ,Alumni ,Parents and Employers collected analyzed and used for improvements internal and external academic administrative audit AAA conducted and its follow up action taken, internal auditing conducted yearly twice and external auditing conducted yearly once three departments EEE ECE CSE accredited with NBA TIER 1 • Organized Faculty Enrichment Programme Series (FEPS ) for all Faculties . Orientation of CO PO / PSOs , PEOs assessment and attainment. • Memorandum of Understanding for Research and Development between Multi Media University , Malacca, Malaysia (MMU) and Mahendra Engineering College (Autonomous), Namakkal held recently signed in the presence of Dr.Md.Shohel Sayeed, Director of Expertise, Faculty of Information Science and Technology , MMU, Malacca, Malaysia and Dr.R.Samson Ravindran, Executive Director Mahendra Educational Institutions, Salem and Namakkal District. Principal Dr.R..V.Mahendra Gowda and Dr.V.Shavnmugam, Dean School of Mechanical Sciences, Dr.C.T.Sivakumar , Executive Officer, Mahendra Engineering College was present in the MoU signing Ceremony. • Multi Media University , Malacca, Malaysia (MMU), having collaboration with renowned top universities in India for exchange Research Ideas and Staff Students Exchange Programmes. • Our College IQAC Director Dr.C.T.Sivakumar received best IQAC Director across India

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

| Plan of Action                              | Achivements/Outcomes                                  |
|---|---|
| Publications                                | One Hundred and Thirty Two Papers were Published      |
| Guest Lecture                               | Organized One hundred and Thirty seven Guest lectures |
| International Lecture                       | Organized Twenty Three International Lectures         |
| Faculty Development Programme               | Conducted seven FDP                                   |
| Workshop                                    | Organized Fourty Three workshops                      |
| Seminar                                     | Conducted Fourty four seminars                        |
| Technical Training                          | Organized Twenty Seven Programmes                     |
| Programmes Organized Conference / Symposium | Conducted Fifteen programmes                          |
| Result                                      | Achieved Ninety percentage both UG and PG             |

|   |   |                        |              |                  |             |
|---|---|------------------------|--------------|------------------|-------------|
| Admission   | Target Achieved   |                        |              |                  |             |
| <a href="#">View File</a>   |   |                        |              |                  |             |
| 14. Whether AQAR was placed before statutory body ?   | Yes   |                        |              |                  |             |
| <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Name of Statutory Body</td> <td style="width: 50%;">Meeting Date</td> </tr> <tr> <td style="text-align: center;">Academic Council</td> <td style="text-align: center;">29-Apr-2021</td> </tr> </table> |   | Name of Statutory Body | Meeting Date | Academic Council | 29-Apr-2021 |
| Name of Statutory Body  | Meeting Date  |                        |              |                  |             |
| Academic Council  | 29-Apr-2021   |                        |              |                  |             |
| 15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?   | Yes   |                        |              |                  |             |
| Date of Visit   | 03-May-2019   |                        |              |                  |             |
| 16. Whether institutional data submitted to AISHE:  | Yes   |                        |              |                  |             |
| Year of Submission  | 2020  |                        |              |                  |             |
| Date of Submission  | 05-Feb-2020   |                        |              |                  |             |
| 17. Does the Institution have Management Information System ?   | Yes   |                        |              |                  |             |
| If yes, give a brief description and a list of modules currently operational (maximum 500 words)  | <p>Cloud based Enterprise Resource Planning (ERP) Software for automation of academic and non academic processes is used in the institute to maintain and analyze the data related to various processes of institute. List of modules currently operational in the ERP software is as follows: 1. Faculty Profile 2. Students database 3. End Semester Examination Schedule 4. Time tables (Academic/Class and Personal) 5. Students Mentoring 6. Attendance monitoring 7. Library Books issue 8. Lecture Materials 9. Faculty feedback by students 13. ID card generation 14. Roll number generation 15. Admission Process 16. Fees Collection Process 17. Subject allotment 18. TC/Bonafied issue 19. Hostel Management 20. Gate pass issue 21. Faculty Feedback by HoD/Principal 22. Variety of reports pertaining to academic monitoring can be printed</p> |                        |              |                  |             |

Part B

**CRITERION I – CURRICULAR ASPECTS**

## 1.1 – Curriculum Design and Development

### 1.1.1 – Programmes for which syllabus revision was carried out during the Academic year

| Name of Programme | Programme Code | Programme Specialization                   | Date of Revision |
|-------------------|----------------|--|------------------|
| BE                | 1111           | Agriculture Engineering                    | 27/02/2019       |
| BE                | 1041           | Electronics Communication Engineering      | 23/03/2019       |
| BE                | 1021           | Civil Engineering                          | 20/02/2019       |
| BE                | 1091           | Mechanical and Automation Engineering      | 14/02/2019       |
| BE                | P3001          | MBA  | 05/03/2019       |
| BE                | 1061           | Electrical and Instrumentation Engineering | 15/03/2019       |
| BE                | 1081           | Mechanical Engineering                     | 15/03/2019       |
| BE                | 1051           | Electrical and Electronics Engineering     | 06/03/2019       |
| BE                | 1101           | Mechatronics                               | 06/03/2019       |
| BE                | 1011           | Aeronautical Engineering                   | 01/03/2019       |

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### 1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

| Programme with Code | Programme Specialization               | Date of Introduction | Course with Code                             | Date of Introduction |
|---------------------|--|----------------------|--|----------------------|
| BE                  | Electrical and Electronics Engineering | 06/06/2019           | Artificial Intelligence and Machine Learning | 06/06/2019           |
| BE                  | Electronics and Communication on       | 16/11/2019           | Computer hardware and interfacing            | 16/11/2019           |
| BE                  | Aeronautical Engineering               | 16/12/2019           | Non Destructive Testing and Evaluation       | 16/12/2019           |
| BE                  | Civil Engineering                      | 27/08/2019           | Formwork Engineering                         | 27/08/2019           |
| BE                  | All B.E. Programmes                    | 06/06/2019           | Competency Development Pragamme              | 06/06/2019           |
| BE                  | All B.E. Programmes                    | 18/11/2019           | Personality Development                      | 18/11/2019           |

|                           |                     |            |                                   |            |
|---------------------------|---------------------|------------|-----------------------------------|------------|
|                           |                     |            | Programmes                        |            |
| BE                        | All B.E. Programmes | 06/06/2019 | Mini Projects                     | 06/06/2019 |
| BE                        | All B.E. Programmes | 06/06/2019 | Professional Ethic and values     | 06/06/2019 |
| BE                        | All B.E. Programmes | 18/11/2019 | Project Phase - II                | 18/11/2019 |
| BE                        | All B.E. Programmes | 06/06/2019 | Environmental Science Engineering | 06/06/2019 |
| <a href="#">View File</a> |                     |            |                                   |            |

## 1.2 – Academic Flexibility

### 1.2.1 – New programmes/courses introduced during the Academic year

| Programme/Course          | Programme Specialization  | Dates of Introduction |
|---------------------------|---------------------------|-----------------------|
| BTech                     | Chemical Engineering      | 06/06/2019            |
| BTech                     | Food Technology           | 06/06/2019            |
| BTech                     | Pharmaceutical Technology | 06/06/2019            |
| <a href="#">View File</a> |                           |                       |

### 1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the College level during the Academic year.

| Name of programmes adopting CBCS | Programme Specialization                  | Date of implementation of CBCS/Elective Course System |
|----------------------------------|---|---|
| BTech                            | Pharmaceutical Technology                 | 06/06/2019  |
| BTech                            | Food Technology                           | 06/06/2019  |
| BTech                            | Chemical Engineering                      | 06/06/2019  |
| BE                               | Civil Engineering                         | 06/06/2019  |
| BE                               | Aeronautical Engineering                  | 06/06/2019  |
| BE                               | Computer Science and Engineering          | 06/06/2019  |
| BE                               | Electronics and Communication Engineering | 06/06/2019  |
| BE                               | Electrical and Electronics Engineering    | 06/06/2019  |
| BE                               | Mechanical Engineering                    | 06/06/2019  |
| BE                               | Agricultural Engineering                  | 06/06/2019  |
| BE                               | Information Technology                    | 06/06/2019  |
| BE                               | Mechatronics                              | 06/06/2019  |
| BE                               | Electrical and Instrument Engineering     | 06/06/2019  |
| BE                               | Mechanical and                            | 06/06/2019  |

|              |   |            |
|--------------|---|------------|
|              | Automation                              |            |
| ME           | Structural Engineering                  | 06/06/2019 |
| ME           | Construction Engineering and Management | 06/06/2019 |
| ME           | Computer Science Engineering            | 06/06/2019 |
| ME           | Manufacturing Engineering               | 06/06/2019 |
| ME           | CAD Engineering                         | 06/06/2019 |
| ME           | Communication Systems                   | 06/06/2019 |
| ME           | Control system                          | 06/06/2019 |
| MBA          | MBA                                     | 06/06/2019 |
| MCA          | MCA                                     | 06/06/2019 |
| PhD or DPhil | Civil                                   | 06/06/2019 |
| PhD or DPhil | Mechanical                              | 06/06/2019 |
| PhD or DPhil | CSE                                     | 06/06/2019 |
| PhD or DPhil | ECE                                     | 06/06/2019 |
| PhD or DPhil | EEE                                     | 06/06/2019 |

### 1.3 – Curriculum Enrichment

#### 1.3.1 – Value-added courses imparting transferable and life skills offered during the year

| Value Added Courses                                  | Date of Introduction | Number of Students Enrolled |
|--|----------------------|-----------------------------|
| CATIA V6   | 06/06/2019           | 74                          |
| Formwork Engineering and Concrete                    | 06/06/2019           | 79                          |
| Artificial Intelligence Machine Learning             | 06/06/2019           | 50                          |
| Data Science and Big Data Analytics with Soft Skills | 06/06/2019           | 50                          |
| PLC, SCADA, HMI and VFD                              | 06/06/2019           | 25                          |
| LABVIEW  | 06/06/2019           | 15                          |
| CATIA  | 06/06/2019           | 8                           |
| Embedded systems                                     | 06/06/2019           | 35                          |
| PLC Programming                                      | 06/06/2019           | 45                          |
| Solar PV Technologies                                | 06/06/2019           | 45                          |
| <a href="#">View File</a>                            |                      |                             |

#### 1.3.2 – Field Projects / Internships under taken during the year

| Project/Programme Title | Programme Specialization | No. of students enrolled for Field Projects / Internships |
|-------------------------|--------------------------|---|
| BE                      | Civil                    | 120   |
| BE                      | Aeronautical             | 179   |



|                           |                           |     |
|---------------------------|---------------------------|-----|
| BE                        | CSE                       | 110 |
| BE                        | ECE                       | 130 |
| BE                        | EEE                       | 85  |
| BE                        | EIE                       | 12  |
| BE                        | Mechanical                | 191 |
| BE                        | Mechanical and Automation | 15  |
| BE                        | Mechatronics              | 41  |
| BE                        | Agriculture Engineering   | 60  |
| <a href="#">View File</a> |                           |     |

## 1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

|           |     |
|-----------|-----|
| Students  | Yes |
| Teachers  | Yes |
| Employers | Yes |
| Alumni    | Yes |
| Parents   | Yes |

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution?  
(maximum 500 words)

### Feedback Obtained

Our Institution has established a system of collecting structured feedback on syllabus, its review and teaching-learning process. Every Department collects feedback from the students for all courses twice in a semester. Generally, the first feedback is collected after one month of commencement of classes and the second feedback is collected at the end of the semester before the examinations. One of the regular classes is earmarked for collection of feedback. The feedback is collected by the members of Internal Quality Assurance Cell (IQAC), its Coordinator and Department IQAC member. After collecting the feedback, it is analysed by a common statistical method. The feedback analysis covers the faculty promptness to classes, quality of teaching, coverage of syllabus, preparing the students for examination, innovative practices followed by the faculty, evaluation procedure, interaction with students, and any revision required in the syllabus. The consolidated report for the feedback of all courses is submitted to the HOD and Principal for taking corrective action if required. The feedback, if any on revision of syllabus given by the students, will be taken up by each Department during the Board of Studies (BOS) meeting. Every Department has BOS for each programme. It consists of Faculty members (Teachers), Industry Experts (Employers), Alumni and an Academic Expert (University nominee). The draft curriculum and syllabi prepared by the Department is discussed in the BOS meeting. The feedback and suggestions given by the members of BOS is recorded in the minutes of the BOS meeting and accordingly the revised curriculum and syllabi is prepared, which is presented by the HOD in the Academic Council meeting. The Academic Council deliberates on the issue and passes the resolution to approve the revised curriculum and syllabi or amend if anything is required.

## CRITERION II – TEACHING- LEARNING AND EVALUATION

### 2.1 – Student Enrolment and Profile

### 2.1.1 – Demand Ratio during the year

| Name of the Programme | Programme Specialization                        | Number of seats available | Number of Application received | Students Enrolled |
|-----------------------|---|---------------------------|--------------------------------|-------------------|
| BE                    | B.E- Food Technology                            | 60                        | 24                             | 16                |
| BE                    | B.E-Chemical Engineering                        | 60                        | 25                             | 17                |
| BE                    | B.TECH. -Information Technology                 | 120                       | 129                            | 120               |
| BE                    | B.E. -Electronics and Communication Engineering | 120                       | 100                            | 84                |
| BE                    | B.E- Mechanical and Automation Engineering      | 60                        | 40                             | 33                |
| BE                    | B.E. - Mechanical Engineering                   | 180                       | 160                            | 132               |
| BE                    | B.E.-Aeronautical Engineering                   | 60                        | 65                             | 59                |
| BE                    | B.E- Mechanical and Automation Engineering      | 60                        | 40                             | 33                |
| BE                    | B.E- Mechatronics                               | 60                        | 55                             | 51                |
| BE                    | B.E. - Computer Science and Engineering         | 120                       | 130                            | 120               |

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## 2.2 – Catering to Student Diversity

### 2.2.1 – Student - Full time teacher ratio (current year data)

| Year | Number of students enrolled in the institution (UG) | Number of students enrolled in the institution (PG) | Number of fulltime teachers available in the institution teaching only UG courses | Number of fulltime teachers available in the institution teaching only PG courses | Number of teachers teaching both UG and PG courses |
|------|---|---|---|---|--|
| 2019 | 3843  | 414   | 245   | 42  | 287  |

## 2.3 – Teaching - Learning Process

### 2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

| Number of Teachers on Roll | Number of teachers using | ICT Tools and resources | Number of ICT enabled | Number of smart classrooms | E-resources and techniques used |
|----------------------------|--------------------------|-------------------------|-----------------------|----------------------------|---------------------------------|
|----------------------------|--------------------------|-------------------------|-----------------------|----------------------------|---------------------------------|

|  |                        |           |            |    |      |
|--|------------------------|-----------|------------|----|------|
|  | ICT (LMS, e-Resources) | available | Classrooms |    |      |
| 287  | 287                    | 1120      | 62         | 25 | 1280 |
| <a href="#">View File of ICT Tools and resources</a>         |                        |           |            |    |      |
| <a href="#">View File of E-resources and techniques used</a> |                        |           |            |    |      |

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Yes, the Students mentoring system is very much available in the Institution. Each Department identifies the list of faculty members to mentor a set of students regularly. Each faculty member is allotted with 10 students for mentoring them (from 1st year to final year). The Mentor regularly meets those students and discuss about Student's performance in terms of Academic, co-curricular, extra-curricular activities and related issues, and offer counseling for improvement. In addition, Anti-ragging Committee and Students Discipline and Welfare Committee are functioning to ensure students safety and welfare. Through Women Empowerment Cell (WEC), a variety of activities and awareness programs are conducted to enhance the confidence of Girls. Also, several Clubs are functioning to encourage students' participation in their areas of interest.

|  |                             |                       |
|--|-----------------------------|-----------------------|
| Number of students enrolled in the institution | Number of fulltime teachers | Mentor : Mentee Ratio |
| 4257   | 287                         | 1:15                  |

## 2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

|                             |                         |                  |  |                          |
|-----------------------------|-------------------------|------------------|--|--------------------------|
| No. of sanctioned positions | No. of filled positions | Vacant positions | Positions filled during the current year | No. of faculty with Ph.D |
| 22                          | 22                      | Nil              | 22                                       | 4                        |

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )

| Year of Award | Name of full time teachers receiving awards from state level, national level, international level | Designation             | Name of the award, fellowship, received from Government or recognized bodies     |
|---------------|---|-------------------------|--|
| 2019          | Mr.K.Balakrishnan   | Assistant Professor     | Best Young Engineer Award  |
| 2019          | Dr.P.Ramya  | Associate Professor     | Outstanding Women in Engineering -received from Venus International Women Awards |
| 2019          | Dr.C.Dhavamani  | IQAC / CIQA coordinator | Executive Council Member - Mechanical Division, IE(I) , Salem                    |
| 2019          | Dr.K.Vidhya   | IQAC / CIQA coordinator | Achievement award for best academican  |
| 2020          | Dr.V.Shanmugam  | Dean                    | Top Performance Mentors Award NPTEL Course                                       |
| 2020          | K.Karthikeyan   | Assistant Professor     | Suradha Award,Tamilnadu Tamil Sangam   |

|                           |                 |                         |   |
|---------------------------|-----------------|-------------------------|---|
| 2019                      | Dr.M.Kannan     | Professor               | UiPath Academic Challenge<br>2019-received from Outstanding Performance-ICT Academy |
| 2019                      | Dr.Y.Shantharam | Assistant Professor     | Best Young Engineer Award   |
| 2019                      | Dr.C.Dhavamani  | IQAC / CIQA coordinator | Executive Council Member, Indian Chamber of Commerce, Salem                         |
| 2019                      | Dr.M.Kannan     | Professor               | Ulektz Wall of Fame-received from Academic council of ulektz                        |
| <a href="#">View File</a> |                 |                         |   |

## 2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

| Programme Name | Programme Code   | Semester/ year                                      | Last date of the last semester-end/ year-end examination | Date of declaration of results of semester-end/ year- end examination |
|----------------|--|---|--|---|
| ME             | 5051,5082,5021,<br>5022,5032,5041,<br>5051                         | 2/I, 4/II   | 11/05/2020   | 30/10/2020  |
| BE             | 1011,1111,1021,<br>1081,1091 1101,<br>1031,1041,1051,<br>1061,2071 | 2/II, 6/III,<br>8/IV                                | 11/05/2020   | 30/10/2020  |
| MBA            | P3001  | 1 semester -<br>I year                              | 09/11/2019   | 20/11/2019  |
| MCA            | P4001  | 1 semester -<br>I year                              | 09/11/2019   | 20/12/2019  |
| BE             | 1011,1111,1021,<br>1081,1091,1101,<br>1031,1041,1051,<br>1061,2071 | 3,5 and 7<br>semesters -<br>III, V and VII<br>years | 09/11/2019   | 20/12/2019  |
| ME             | 5051,5082,5021,<br>5022,5032,5041,<br>5051                         | 1/I 3/II  | 09/11/2019   | 20/12/2019  |
| MCA            | P4001  | 2/I, 4/II   | 11/05/2020   | 30/10/2020  |
| MBA            | P3001  | 2/I, 4/II   | 11/05/2020   | 30/10/2020  |
| BE             | 1011,1111,1021,<br>1081,1091,1101,                                 | 1/I   | 18/12/2020   | 31/12/2020  |

1031,1041,1051,  
1061,2071,112,1  
13,114

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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

| Number of complaints or grievances about evaluation | Total number of students appeared in the examination | Percentage |
|---|--|------------|
| 80  | 3699   | 2.16       |

## 2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

<http://www.mahendra.info>

2.6.2 – Pass percentage of students

| Programme Code | Programme Name | Programme Specialization                  | Number of students appeared in the final year examination | Number of students passed in final year examination | Pass Percentage |
|----------------|----------------|---|---|---|-----------------|
| U1081          | BE             | Mechanical Engineering                    | 190   | 190   | 100             |
| U1021          | BE             | Civil Engineering                         | 79  | 76  | 96              |
| U1111          | BE             | Agriculture Engineering                   | 59  | 59  | 100             |
| U1011          | BE             | Aeronautical Engineering                  | 47  | 47  | 100             |
| U1091          | BE             | Mechanical and Automation Engineering     | 15  | 15  | 100             |
| U1101          | BE             | Mechatronics                              | 41  | 41  | 100             |
| U1031          | BE             | Computer Science and Engineering          | 85  | 85  | 100             |
| U1041          | BE             | Electronics and Communication Engineering | 84  | 84  | 100             |
| U1051          | BE             | Electrical and Electronics Engineering    | 86  | 86  | 100             |
| U1061          | BE             | Electronics                               | 10  | 10  | 100             |

and Instrumentation Engineering

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## 2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

<http://www.mahendra.info/pdf/SSS-2019-2020.pdf>

## CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 – Promotion of Research and Facilities

3.1.1 – The institution provides seed money to its teachers for research

Yes

Name of the teacher getting seed money

Dr . C . Dhavamani

[View File](#)

3.1.2 – Teachers awarded National/International fellowship for advanced studies/ research during the year

| Type              | Name of the teacher awarded the fellowship | Name of the award | Date of award | Awarding agency |
|-------------------|--|-------------------|---------------|-----------------|
| Nil               | Nil  | Nil               | Nil           | Nil             |
| No file uploaded. |  |                   |               |                 |

### 3.2 – Resource Mobilization for Research

3.2.1 – Research funds sanctioned and received from various agencies, industry and other organisations

| Nature of the Project | Duration | Name of the funding agency | Total grant sanctioned | Amount received during the year |
|-----------------------|----------|----------------------------|------------------------|---------------------------------|
| Any Other (Specify)   | 2        | CSIR                       | 0.25                   | 0.25                            |
| Any Other (Specify)   | 7        | Anna University            | 0.4                    | 0.4                             |
| Any Other (Specify)   | 28       | AICTE                      | 4                      | 4                               |
| Any Other (Specify)   | 28       | AICTE                      | 3.07                   | 3.07                            |
| Any Other (Specify)   | 14       | AICTE                      | 0.93                   | 0.93                            |
| Major Projects        | 1095     | AICTE                      | 17.02                  | 16.62                           |
| Major Projects        | 1095     | AICTE                      | 6.5                    | 6.25                            |

|                           |      |       |     |     |
|---------------------------|------|-------|-----|-----|
| Major Projects            | 1095 | AICTE | 8.5 | 8.5 |
| <a href="#">View File</a> |      |       |     |     |

3.2.2 – Number of ongoing research projects per teacher funded by government and non-government agencies during the years

|    |
|----|
| 17 |
|----|

### 3.3 – Innovation Ecosystem

3.3.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

| Title of workshop/seminar                               | Name of the Dept.        | Date       |
|---|--------------------------|------------|
| Space Mechanics   | Aeronautical Engineering | 28/01/2020 |
| Dronics   | Aeronautical Engineering | 13/03/2020 |
| Geometric Dimensions and Tolerance                      | Aeronautical Engineering | 06/06/2019 |
| Entrepreneurship  | MBA                      | 03/12/2020 |
| Formwork engineering                                    | Civil Engineering        | 21/01/2020 |
| Formwork engineering concrete (coofec)-refresher course | Civil Engineering        | 09/01/2020 |
| Formwork engineering and concrete                       | Civil Engineering        | 20/01/2020 |
| Novelty in urban waste water management strategies      | Civil Engineering        | 30/01/2020 |
| Hands on training on advanced surveying                 | Civil Engineering        | 10/03/2020 |
| Steel structures design using tekla                     | Civil Engineering        | 06/05/2020 |
| The do's and don'ts of general construction             | Civil Engineering        | 12/05/2020 |
| Written communication skills (webinar)                  | English                  | 25/05/2020 |
| English Language Competence (Quiz)                      | English                  | 26/06/2020 |
| Life skills for career development                      | English                  | 17/09/2019 |
| Entrepreneurship - A Practical Perspective              | MBA                      | 27/10/2020 |
| Entrepreneurship  | MBA                      | 03/12/2019 |
| Entrepreneurship Opportunities in Stock Market          | MBA                      | 10/10/2020 |
| Intellectual Property Rights (IPR)                      | MBA                      | 24/08/2020 |
| Elegant Way to Acquire                                  | MBA                      | 27/07/2019 |

Intellectual Property Rights (IPR)

[View File](#)

3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

| Title of the innovation                                | Name of Awardee   | Awarding Agency  | Date of award | Category |
|--|-------------------|--|---------------|----------|
| Best Faculty Project                                   | Ms.P.Saradha      | Dr.Kalam Education Trust   | 21/03/2020    | Faculty  |
| Best Young Engineer                                    | Mr.Y.Shantharam   | Institute of engineers (IEI), Salem                                    | 23/03/2019    | Faculty  |
| Achievement award for best academician                 | Dr.K.Vidhya       | 19th Viswakarma award - CIDC, Planning Commission, Government of India | 23/03/2019    | Faculty  |
| Education Across India                                 | Dr.M.Kannan       | Academic council of ulektz   | 25/07/2020    | Faculty  |
| Top 50 Distinguished HODs CSE/ IT Department in Higher | Dr.M.Kannan       | Academic council of ulektz   | 17/03/2020    | Faculty  |
| Best Young Engineer                                    | Mr.K.Balakrishnan | IE(I)  | 18/09/2019    | Faculty  |

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3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

| Incubation Center                     | Name             | Sponsored By | Name of the Start-up  | Nature of Start-up | Date of Commencement |
|---------------------------------------|------------------|--------------|---|--------------------|----------------------|
| Mahendra Technology Incubation Centre | Mr.Velusamy      | MSME         | Design and Fabrication of Eco Friendly Tiles Machine                      | Product            | 15/03/2019           |
| Mahendra Technology Incubation Centre | Mr.Thiyagarajan  | MSME         | Development of Laccase Enzyme Based Water Purifier and Detergent enhancer | Technology         | 09/04/2019           |
| Mahendra Technology Incubation Centre | Mr.R.Gunasekaran | MSME         | Miniature Scale Industrial Ash Aggregate Plant                            | Technology         | 05/02/2019           |



|                                       |                    |      |  |            |            |
|---------------------------------------|--------------------|------|--|------------|------------|
| Mahendra Technology Incubation Centre | Ms.Sivabak gium    | MSME | Design and Fabrication of Automatic poultry feeder | Technology | 07/03/2019 |
| Mahendra Technology Incubation Centre | Mr.Jayakumar       | MSME | Physio Fast Heal Assistive Technology              | Product    | 18/03/2019 |
| Mahendra Technology Incubation Centre | Mr.Raghu saravanan | MSME | Design and Fabrication of Sew Seed Dibbler         | Technology | 18/02/2019 |
| <a href="#">View File</a>             |                    |      |  |            |            |

### 3.4 – Research Publications and Awards

#### 3.4.1 – Ph. Ds awarded during the year

| Name of the Department                    | Number of PhD's Awarded |
|---|-------------------------|
| Electrical and Electronics Engineering    | 2                       |
| Electronics and Communication Engineering | 4                       |
| Civil Engineering                         | 1                       |
| Mechanical Engineering                    | 2                       |
| Computer Science Engineering              | 1                       |
| M.B.A                                     | 2                       |
| M.C.A                                     | 1                       |
| I.T                                       | 1                       |

#### 3.4.2 – Research Publications in the Journals notified on UGC website during the year

| Type          | Department                                | Number of Publication | Average Impact Factor (if any) |
|---------------|---|-----------------------|--------------------------------|
| International | Agricuture Engineering                    | 3                     | 3.20                           |
| International | Aeronautical Engineering                  | 5                     | 2.05                           |
| International | Civil Engineering                         | 6                     | 3.25                           |
| International | Computer Science and Engineering          | 14                    | 5.30                           |
| International | Information Technology                    | 6                     | 3.80                           |
| International | Electronics and Communication Engineering | 15                    | 4.60                           |
| International | Electrical and Electronics Engineering    | 14                    | 4.80                           |
| International | Mechanical                                | 5                     | 2.60                           |

|               |              |   |      |
|---------------|--------------|---|------|
|               | Engineering  |   |      |
| International | Mechatronics | 5 | 2.20 |
| International | English      | 4 | 0.80 |

[View File](#)

3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

| Department                       | Number of Publication |
|----------------------------------|-----------------------|
| Computer Science and Engineering | 1                     |
| Mechanical Engineering           | 1                     |

[View File](#)

3.4.4 – Patents published/awarded during the year

| Patent Details  | Patent status | Patent Number   | Date of Award |
|---|---------------|-----------------|---------------|
| Secure and Reliable Smart E-voting System using Aadhar Card   | Published     | 201941018956 A  | Nil           |
| A Simple and Effective Device for Detecting and Diagnosing the earlier  | Published     | 201941013976 A  | Nil           |
| Industrial induction heater power converting system and a method  | Published     | 201941003361 A  | Nil           |
| Horizontal Axis, Cam Guided, Telescopic Blade, Yaw Controlled   | Published     | 201841033956A   | Nil           |
| Geofence based border limiting System   | Published     | 201941033492 A  | Nil           |
| Flexible Sliding Stretcher  | Published     | 2.02E11         | Nil           |
| Quick-wotted cloth cradle for newborn babies to reduce sleep disorders  | Published     | 202041017580 A  | Nil           |
| Quick Witted cloth cradle   | Published     | 330609-001/D/SP | Nil           |
| Transmission power and frequency based network selection scheme for minimizing the harmful radiation from GSM mobiles | Published     | 2.02041E+11     | Nil           |

|  |           |            |      |
|--|-----------|------------|------|
| Automatic Braeking system in Automobiles | Published | 2.01941E11 | Null |
| <a href="#">View File</a>                |           |            |      |

3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

| Title of the Paper  | Name of Author                      | Title of journal   | Year of publication | Citation Index | Institutional affiliation as mentioned in the publication | Number of citations excluding self citation |
|---|-------------------------------------|--|---------------------|----------------|---|---|
| A Dynamic Technique to Enhance Quality of Service in Software Defined Networking based Wireless Sensor Network (DTEQT) Using Machine Learning | R.Vijaya rajeswari                  | Internat ional Journal of Wavelets, Multi resolution and Inform ation Processing | 2019                | 1              | Mahendra Engineerin g College                             | 1   |
| Recommen dation System to Improve Students' Performanc e using Machine Learning   | P Ramya, S G Bala krishnan M Kannan | IOP: Materials Science and Engine ering  | 2020                | 1              | Mahendra Engineerin g College                             | 1   |
| Heart signal analysis on multi-domain features extraction by SVM classifier in smart monitoring system  | Dr.S.Sum athi                       | Internat ional Journal of Innovative Technology and Exploring Engineerin g       | 2019                | 1              | Mahendra Engineerin g College                             | 1   |
| Applicat ion of AIS on closed loop controller design in buck  | S. Sumathi                          | Internat ional Journal of Recent Technology and Engine ering,                    | 2019                | 1              | Mahendra Engineerin g College                             | 1   |

|  |                |   |      |   |                              |   |
|--|----------------|---|------|---|------------------------------|---|
| converter  |                |   |      |   |                              |   |
| Fuzzy and PID Controllers for Buck-Boost Converter Fed Bridgeless BLDC Motor over Cloud                            | P.Umasankar    | International Conference on Intelligent Data Communication Technologies and Internet of Things, | 2019 | 1 | Mahendra Engineering College | 1 |
| An automatic single axis tracking and cleaning mechanism for solar photovoltaic system                             | G.Dinesh       | International journal of scientific development and research                                    | 2019 | 1 | Mahendra Engineering College | 1 |
| Identification of stroke diagnostic classification using machine learning",  | S.Sumathi      | Solid state Technology,   | 2020 | 2 | Mahendra Engineering College | 2 |
| Effect of Nickel Addition on Microstructure and Mechanical Properties of the Spark Plasma Sintered Ti-6Al-4V Alloy | Mr.M.Rajadurai | Transactions of the Indian Institute of Metals  | 2019 | 2 | Mahendra Engineering College | 2 |
| Effect of various sintering methods on microstructures and mechanical properties of titanium and its alloy (Ti-    | Mr.M.Rajadurai | Russian Journal of Non-Ferrous Metals   | 2019 | 2 | Mahendra Engineering College | 3 |

|   |                       |                                 |      |   |                              |   |
|---|-----------------------|---------------------------------|------|---|------------------------------|---|
| Al-V-X): A review   |                       |                                 |      |   |                              |   |
| Traits of Outsourcing Bigdata in V's Term with Safe Secure Cryptosystem | Dr.A.Neela Madheswari | TEST Engineering and Management | 2019 | 3 | Mahendra Engineering College | 3 |
| <a href="#">View File</a>   |                       |                                 |      |   |                              |   |

3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

| Title of the Paper   | Name of Author         | Title of journal                            | Year of publication | h-index | Number of citations excluding self citation | Institutional affiliation as mentioned in the publication |
|--|------------------------|---|---------------------|---------|---|---|
| A novel hybrid optimized and adaptive reconfigurable framework for the implementation of hybrid bio-inspired classifiers for diagnosis | Viswanathan Nallasamy  | Journal of Microprocessors and Microsystems | 2020                | 3       | 3   | Mahendra Engineering College                              |
| Classification of mammogram for early detection of breast cancer using SVM classifier and Hough transform                              | Dr.R. Vijaya rajeswari | Measurement                                 | 2019                | 41      | 3   | Mahendra Engineering College                              |
| An Enhanced Symptom Clustering with Profile Based Prescription Suggestion in Biomedical applicatio                                     | Dr.R. Vijaya rajeswari | Journal of medical systems                  | 2019                | 1       | 2   | Mahendra Engineering College                              |

|   |                |  |      |   |   |                              |
|---|----------------|--|------|---|---|------------------------------|
| n   |                |  |      |   |   |                              |
| Application of AIS on closed loop controller design in buck converter   | S. Sumathi     | International Journal of Recent Technology and Engineering | 2019 | 1 | 2 | Mahendra Engineering College |
| Optimization of Recent aspects of power converters  | S.Sumathi      | International Journal of Scientific Technology Research,   | 2019 | 2 | 2 | Mahendra Engineering College |
| New opposition cuttlefish optimizer based two-step approach for optimal design of fractional order proportional integral derivative controller for time delay systems | P.Umasankar    | International Journal of numerical model                   | 2019 | 2 | 1 | Mahendra Engineering College |
| Effect of Nickel Addition on Microstructure and Mechanical Properties of the Spark Plasma Sintered Ti-6Al-4V Alloy  | Mr.M.Rajadurai | Transactions of the Indian Institute of Metals             | 2019 | 3 | 1 | Mahendra Engineering College |
| Effect of various sintering methods on microstructures and mechanical properties  | Mr.M.Rajadurai | Russian Journal of Non-Ferrous Metals                      | 2019 | 3 | 1 | Mahendra Engineering College |

|   |                 |   |      |   |   |                              |
|---|-----------------|---|------|---|---|------------------------------|
| of titanium and its alloy (Ti-Al-V-X): A review   |                 |   |      |   |   |                              |
| Segmentation and boundary detection of fetal kidney images in second and third trimesters using kernel-based fuzzy clustering   | P.Suresh Kumar, | Journal of medical systems, c                             | 2019 | 2 | 1 | Mahendra Engineering College |
| Some Investigations on Heterogeneous Deep Learning Network using Stable Election Protocol with Region Based Energy Conservation | P. Suresh Kumar | International Journal of Advanced Science and Engineering | 2019 | 2 | 3 | Mahendra Engineering College |
| <a href="#">View File</a>   |                 |   |      |   |   |                              |

### 3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

| Number of Faculty           | International | National | State | Local |
|-----------------------------|---------------|----------|-------|-------|
| Attended/Seminars/Workshops | 4             | 37       | 42    | 314   |
| <a href="#">View File</a>   |               |          |       |       |

### 3.5 – Consultancy

#### 3.5.1 – Revenue generated from Consultancy during the year

| Name of the Consultan(s) department | Name of consultancy project            | Consulting/Sponsoring Agency | Revenue generated (amount in rupees) |
|-------------------------------------|--|------------------------------|--------------------------------------|
| Computer Science Engineering        | Website Development Billing Software   | Sanjana Systems              | 195000                               |
| Computer Science Engineering        | Mobile App Web application development | Ability software             | 155000                               |

|   |  |   |        |
|---|--|---|--------|
| Electrical and Electronics Engineering    | Energy Auditing  | Mangla Smart Energy solutions, Tirupur  | 240000 |
| Electrical and Electronics Engineering    | Switchgear Maintenance   | Frankinsteins Engineering Laboratories Private Limited, Tirupur               | 260000 |
| Mechatronics                              | SS Technovation, Coimbatore.                                       | SS Technovation   | 200000 |
| Mechanical Engineering                    | Dyeing Machine   | Tony Engineering Pvt.Ltd., 4/638, Veerapandy Pirivu, Palladam Road, Tiruppur. | 200000 |
| Electronics and Communication Engineering | Voice controlled based security monitoring system and E Management | Raana Power Solutions, Salem  | 402778 |
| Civil Engineering                         | Compressive strength of concrete slab                              | G.K. Construction, Erode  | 140000 |
| <a href="#">View File</a>                 |  |   |        |

### 3.5.2 – Revenue generated from Corporate Training by the institution during the year

| Name of the Consultan(s) department | Title of the programme | Agency seeking / training | Revenue generated (amount in rupees) | Number of trainees |
|-------------------------------------|------------------------|---------------------------|--------------------------------------|--------------------|
| Nil                                 | Nil                    | Nil                       | 0                                    | 0                  |
| <a href="#">View File</a>           |                        |                           |                                      |                    |

### 3.6 – Extension Activities

#### 3.6.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

| Title of the activities                            | Organising unit/agency/ collaborating agency | Number of teachers participated in such activities | Number of students participated in such activities |
|--|--|--|--|
| Dengue awareness programme                         | NSS  | 8  | 450  |
| Blood donation day                                 | NSS  | 10   | 150  |
| International yoga day                             | NSS  | 7  | 125  |
| World environmental day                            | NSS  | 4  | 120  |
| Importance of Professional Ethics and Human Values | NSS  | 5  | 125  |
| “Horn Not Ok Please (HNOP)” Campaign               | MEC Student Club                             | 17   | 35   |



|   |                  |   |    |
|---|------------------|---|----|
| To Show Safety of Girls Harassment Awareness Activity         | MEC Student Club | 4 | 25 |
| To Show Environmental Awareness Activity (Don't Use Plastics) | MEC Student Club | 5 | 20 |
| Airshow and Demo of Aircraft Activity                         | MEC Student Club | 4 | 20 |
| <a href="#">View File</a>                                     |                  |   |    |

3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

| Name of the activity      | Award/Recognition      | Awarding Bodies                    | Number of students Benefited |
|---------------------------|------------------------|------------------------------------|------------------------------|
| Societal Activity         | Honourable Institution | American Society of Civil Engineer | 165                          |
| IIC                       | IIC Brand Ambassador   | MHRD                               | 800                          |
| <a href="#">View File</a> |                        |                                    |                              |

3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

| Name of the scheme     | Organising unit/Agency/collaborating agency | Name of the activity                               | Number of teachers participated in such activities | Number of students participated in such activities |
|------------------------|---|--|--|--|
| Societal Activities    | NSS   | Road safety awareness                              | 8  | 450  |
| Societal Activities    | NSS   | Dengue awareness programme                         | 7  | 250  |
| Societal Activities    | NSS   | Blood donation day                                 | 10   | 150  |
| Societal Activities    | NSS   | International yoga day                             | 7  | 125  |
| Societal Activities    | NSS   | World environmental day                            | 4  | 150  |
| Societal Activities    | NSS   | Importance of Professional Ethics and Human Values | 5  | 125  |
| Aerospace Booster Club | Student Club                                | Airshow and Demo of Aircraft Activity              | 4  | 20   |
| Executive Club         | Student Club                                | To Show Environmental Awareness                    | 5  | 20   |

|                           |              |   |    |    |
|---------------------------|--------------|---|----|----|
|                           |              | Activity (Don't Use Plastics)                         |    |    |
| Designer Club             | Student Club | To Show Safety of Girls Harassment Awareness Activity | 4  | 25 |
| Awareness Programme       | Student Club | Horn Not Ok Please (HNOP)" Campaign                   | 17 | 35 |
| <a href="#">View File</a> |              |   |    |    |

### 3.7 – Collaborations

#### 3.7.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

| Nature of activity                                   | Participant | Source of financial support | Duration |
|--|-------------|-----------------------------|----------|
| Workshop- STEEL STRUCTURES DESIGN USING TEKLA        | Students    | Institution                 | 1        |
| Seminar - THE DO'S AND DON'TS OF GENERALCONSTRUCTION | Students    | Institution                 | 1        |
| Seminar - REVOLUTION OF FORMWORK IN CONSTRUCTION     | Students    | Institution                 | 4        |
| Seminar - LT FORMWORK SYSTEMS AND DESIGN             | Students    | Institution                 | 1        |
| Workshop - BASICS CONCEPTS OF FORMWORK ENGINEERING   | Students    | Institution                 | 1        |
| Guest Lecture - FORMWORK ENGINEERING AND CONCRETE    | Students    | Institution                 | 4        |
| Mails - BASIC DESIGN CONCEPTS AND FORMWORK SYSTEMS   | Students    | Institution                 | 1        |
| Workshop - FORMWORK RESOURCE PLANNING                | Students    | Institution                 | 1        |
| Short Term Course- FORMWORK ENGINEERING CONCRETE     | Students    | Institution                 | 2        |
| Workshop - DEMONSTRATION OF VARIOUS FORMWORK SYSTEMS | Students    | Institution                 | 2        |

[View File](#)

3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

| Nature of linkage         | Title of the linkage                         | Name of the partnering institution/ industry /research lab with contact details | Duration From | Duration To | Participant                 |
|---------------------------|--|---|---------------|-------------|-----------------------------|
| Internship                | Cloud Computing                              | Surya Informatics Solution Pvt Ltd, Chennai                                     | 02/01/2020    | 30/03/2020  | 3 students                  |
| Internship                | Bigdata                                      | Triple Tech Soft, Salem   | 02/11/2019    | 27/11/2019  | 4 students                  |
| Internship                | Mobile Application Development               | Litztech, Coimbatore  | 26/08/2019    | 31/08/2019  | 2 students                  |
| Internship                | PHP Programming                              | SaNDS Lab Pvt. Ltd.   | 11/11/2019    | 23/11/2019  | 3 students                  |
| Internship                | Instruments service and software installment | Meril Corporate, Gujarat  | 03/02/2020    | 21/02/2020  | 1 student                   |
| Internship                | Python                                       | Pantech, Coimbatore   | 03/01/2020    | 07/01/2020  | 2 students                  |
| Internship                | Python                                       | Uniq Technologies, Coimbatore   | 03/01/2020    | 07/01/2020  | 4 students                  |
| Project Work              | Project work                                 | Barola Aero Pvt Ltd, Chennai  | 05/11/2019    | 04/12/2019  | 10 students                 |
| Skill oriented Training   | Siemens Center of Excellence                 | NIT-Trichy  | 05/12/2019    | 20/12/2019  | 95 students and one faculty |
| Training and Placement    | CATIA Training                               | Harita Tech Serv  | 16/07/2019    | 19/12/2019  | 74 students                 |
| <a href="#">View File</a> |  |   |               |             |                             |

3.7.3 – MoUs signed with institutions of national, international importance, other institutions, industries, corporate houses etc. during the year

| Organisation                 | Date of MoU signed | Purpose/Activities | Number of students/teachers participated under MoUs |
|------------------------------|--------------------|--------------------|---|
| Siemens Center of Excellence | 06/04/2019         | Skill training     | 150   |
| SS Technovision - Coimbatore | 09/01/2020         | Training Programme | 60  |

|  |            |                                     |     |
|--|------------|-------------------------------------|-----|
| Infosys Limited<br>Campus Connect      | 22/02/2019 | Faculty<br>Enrichment<br>Programme  | 102 |
| UI Path Academic<br>Alliance           | 20/02/2019 | UI path RPA<br>Challenge Program    | 250 |
| ABE Semiconductor<br>and Design Pvt Lt | 05/12/2019 | Seminar conducted<br>and Internship | 25  |
| <a href="#">View File</a>              |            |                                     |     |

## CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

|  |  |
|--|--|
| Budget allocated for infrastructure augmentation | Budget utilized for infrastructure development |
| 1120   | 1113   |

4.1.2 – Details of augmentation in infrastructure facilities during the year

| Facilities   | Existing or Newly Added |
|--|-------------------------|
| Campus Area  | Existing                |
| Class rooms  | Newly Added             |
| Laboratories   | Newly Added             |
| Seminar Halls  | Existing                |
| Classrooms with LCD facilities                                     | Existing                |
| Seminar halls with ICT facilities                                  | Newly Added             |
| Video Centre   | Existing                |
| Value of the equipment purchased<br>during the year (rs. in lakhs) | Newly Added             |
| Others   | Newly Added             |
| Classrooms with Wi-Fi OR LAN                                       | Existing                |
| <a href="#">View File</a>  |                         |

### 4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

| Name of the ILMS<br>software | Nature of automation (fully<br>or partially) | Version | Year of automation |
|------------------------------|--|---------|--------------------|
| LMS - Autolib                | Fully  | 5.1     | 2018               |
| LMS- Bloom<br>Technologies   | Fully  | 6.3     | 2019               |

4.2.2 – Library Services

| Library<br>Service Type | Existing |          | Newly Added |     | Total  |          |
|-------------------------|----------|----------|-------------|-----|--------|----------|
|                         |          |          |             |     |        |          |
| Text<br>Books           | 104394   | 42773396 | Nil         | Nil | 104394 | 42773396 |
| Reference<br>Books      | 7450     | 2145000  | Nil         | Nil | 7450   | 2145000  |

|                           |      |         |      |        |      |         |
|---------------------------|------|---------|------|--------|------|---------|
| Journals                  | 1961 | 4276024 | 219  | 573968 | 2180 | 4849992 |
| Digital Database          | 19   | 1339164 | 2    | 705968 | 21   | 2045132 |
| e-Journals                | 8800 | 1922336 | 802  | 705968 | 9602 | 2628304 |
| CD & Video                | 5978 | 108275  | 17   | Nil    | 5995 | 108275  |
| Library Automation        | 1    | 45000   | 1    | 25000  | 2    | 70000   |
| Weeding (hard & soft)     | 688  | Nil     | Nil  | Nil    | 688  | Nil     |
| Others(s pecify)          | 3711 | Nil     | 3711 | Nil    | 7422 | Nil     |
| <a href="#">View File</a> |      |         |      |        |      |         |

4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

| Name of the Teacher       | Name of the Module                   | Platform on which module is developed | Date of launching e-content |
|---------------------------|--------------------------------------|---------------------------------------|-----------------------------|
| Dr.S.Umamaheswari         | Boimedical Instrumentation           | Learning Management System (LMS)      | 03/06/2019                  |
| Dr.S.Sumathi              | Design of Electrical Machines        | Learning Management System (LMS)      | 03/06/2019                  |
| Dr.P.Suresh kumar         | Design of Electrical and Electronics | Learning Management System (LMS)      | 03/06/2019                  |
| Ms.P.Saradha              | Design of Steel Structures           | Learning Management System (LMS)      | 03/06/2019                  |
| Dr.Y.Shantharam           | Foundation Engineering               | Learning Management System (LMS)      | 03/06/2019                  |
| Dr.C.Dhavamani            | Strength of Materials                | Learning Management System (LMS)      | 03/06/2019                  |
| Dr.P.Balashanmuga Vadivu  | Linear Integrated Circuits           | Learning Management System (LMS)      | 03/06/2019                  |
| Dr. P.Ramya               | Data Base Management System          | Learning Management System (LMS)      | 03/06/2019                  |
| <a href="#">View File</a> |                                      |                                       |                             |

#### 4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

| Type | Total Co | Computer | Internet | Browsing | Computer | Office | Departme | Available | Others |
|------|----------|----------|----------|----------|----------|--------|----------|-----------|--------|
|------|----------|----------|----------|----------|----------|--------|----------|-----------|--------|

|          |           |     |    |         |         |    |     |                       |   |
|----------|-----------|-----|----|---------|---------|----|-----|-----------------------|---|
|          | computers | Lab |    | centers | Centers |    | nts | Bandwidth (MBPS/GBPS) |   |
| Existing | 1260      | 13  | 50 | 2       | 1       | 15 | 25  | 100                   | 0 |
| Added    | 0         | 0   | 0  | 0       | 0       | 0  | 0   | 0                     | 0 |
| Total    | 1260      | 13  | 50 | 2       | 1       | 15 | 25  | 100                   | 0 |

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

100 MBPS/ GBPS

4.3.3 – Facility for e-content

| Name of the e-content development facility | Provide the link of the videos and media centre and recording facility                                |
|--|---|
| Dr.C.Dhavamani                             | <a href="https://www.youtube.com/watch?v=FXLPpC3llac">https://www.youtube.com/watch?v=FXLPpC3llac</a> |
| Dr.K. Vidhya                               | <a href="https://youtu.be/L7FD-UAqtvU">https://youtu.be/L7FD-UAqtvU</a>                               |
| Mr.S.Manishankar                           | <a href="https://youtu.be/p6p7e4n6Jw0">https://youtu.be/p6p7e4n6Jw0</a>                               |
| Dr.Y.Shantharam                            | <a href="https://youtu.be/3Jkt3aOX9Bk">https://youtu.be/3Jkt3aOX9Bk</a>                               |

#### 4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

| Assigned Budget on academic facilities | Expenditure incurred on maintenance of academic facilities | Assigned budget on physical facilities | Expenditure incurred on maintenance of physical facilities |
|--|--|--|--|
| 40                                     | 37.48  | 350                                    | 343.34   |

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website)

Expansion of technology has enhanced the use of computers in curriculum development, teaching learning, evaluation and research. Students are encouraged to make use of computers for Power Point Presentations of their seminars and projects. Internet connectivity is given to all the departments. Internet browsing is available for teachers and students at the Internet Centre free of cost during the working hours of the library. physical education classes allotted for all students Library hours is given in all students As per requirement Lab hours are scheduled .

[www.mahendra.info/igac.php](http://www.mahendra.info/igac.php)

#### CRITERION V – STUDENT SUPPORT AND PROGRESSION

##### 5.1 – Student Support

5.1.1 – Scholarships and Financial Support

|                                      | Name/Title of the scheme   | Number of students | Amount in Rupees |
|--------------------------------------|----------------------------|--------------------|------------------|
| Financial Support from institution   | Mahendra Educational Trust | 815                | 44478000         |
| Financial Support from Other Sources |                            |                    |                  |

|                           |  |      |           |
|---------------------------|--|------|-----------|
| a) National               | Scholarships and free ships provided by the Government | 2056 | 103865320 |
| b) International          | Nil  | Nil  | Nil       |
| <a href="#">View File</a> |  |      |           |

5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

| Name of the capability enhancement scheme  | Date of implemetation | Number of students enrolled | Agencies involved   |
|--|-----------------------|-----------------------------|---|
| Online Fraud and Harassment  | 01/08/2019            | 35                          | Edgeverve System, Bangalore   |
| Women in Cyberspace - Challenges and Strategies  | 30/08/2019            | 100                         | Edgeverve System, Bangalore   |
| Women are the Real Architects of Society   | 22/06/2019            | 450                         | National Technical Committee Member - NCDRC   |
| Softskill Development Training   | 15/06/2019            | 3820                        | Mahendra Engineering College  |
| Evening Complementary Coaching Classes-EC2   | 26/08/2020            | 410                         | Mahendra Engineering College  |
| CII YI awareness on Organ donar by CII -YI   | 07/08/2019            | 60                          | CII-YI  |
| Blood Donation camp with Salem Blood Bank for International Volunteers Blood Donors Day                              | 01/10/2019            | 157                         | Saravana Hospital   |
| Importance of Engineering Education and Goal Setting / Literary Activity / Human Values Mentoring / Yoga/ Meditation | 06/08/2019            | 920                         | Mahendra Engineering College  |
| Inauguration M-First at our Mahendra Engineering College and Awareness Programme on Innovation                       | 09/10/2019            | 850                         | Mrs.P.Usha, CEO, Namakkal District addressed the gathering of 1500 students. Our Management contributed Rs.2,50,000/- to 25 schools (Rs.10,000/- per school for 25 Schools) for |

|  |            |     |   |
|--|------------|-----|---|
|  |            |     | developing<br>Innovation ideas.   |
| Mahendra Academy<br>for Technical<br>Training and<br>Placement | 06/12/2019 | 850 | MR.Sujith Kumar,<br>Infosys HR ,<br>Managing Director,<br>Matram Foundation<br>addressed our<br>students of<br>Softskills |
| <a href="#">View File</a>                                      |            |     |   |

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

| Year                      | Name of the scheme      | Number of benefited students for competitive examination | Number of benefited students by career counseling activities | Number of students who have passed in the comp. exam | Number of students placed |
|---------------------------|-------------------------|--|--|--|---------------------------|
| 2019                      | SSCJE                   | 177  | 177  | Nil  | Nil                       |
| 2019                      | UPSE                    | 97   | 97   | Nil  | Nil                       |
| 2019                      | Career Counselling      | Nil  | 850  | Nil  | 560                       |
| 2020                      | Apptitude and Softskill | Nil  | 785  | Nil  | Nil                       |
| <a href="#">View File</a> |                         |  |  |  |                           |

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

| Total grievances received | Number of grievances redressed | Avg. number of days for grievance redressal |
|---------------------------|--------------------------------|---|
| 3                         | 3                              | 5   |

## 5.2 – Student Progression

5.2.1 – Details of campus placement during the year

| On campus                                     |                                 |                           | Off campus                    |                                 |                           |
|---|---------------------------------|---------------------------|-------------------------------|---------------------------------|---------------------------|
| Name of organizations visited                 | Number of students participated | Number of students placed | Name of organizations visited | Number of students participated | Number of students placed |
| Mahendra Engineering College - Placement cell | 750                             | 529                       | other organizations           | 112                             | 47                        |
| <a href="#">View File</a>                     |                                 |                           |                               |                                 |                           |

5.2.2 – Student progression to higher education in percentage during the year

| Year | Number of students enrolling into higher education | Programme graduated from | Department graduated from | Name of institution joined | Name of programme admitted to |
|------|--|--------------------------|---------------------------|----------------------------|-------------------------------|
|------|--|--------------------------|---------------------------|----------------------------|-------------------------------|



|                           |   |      |              |   |   |
|---------------------------|---|------|--------------|---|---|
| 2020                      | 1 | B.E. | Mechanical   | Sona College of Technology                | MBA   |
| 2020                      | 1 | B.E  | EIE          | Annapoorna Engineering College            | M.E power Electronics & Drives              |
| 2020                      | 1 | B.E  | Civil        | Mahendra Engineering College              | MBA   |
| 2020                      | 3 | MBA  | Civil        | Mahendra Engineering College              | ME - Structural Engineering                 |
| 2020                      | 1 | B.E  | Civil        | Periyar University                        | MBA   |
| 2020                      | 1 | B.E  | Aeronautical | NTU, Singapore                            | M.S Aerospace Engineering                   |
| 2020                      | 1 | B.E  | Aeronautical | Mahendra Engineering College              | M.E.CAD                                     |
| 2020                      | 1 | B.E  | Aeronautical | Dresden University of Technology/ Germany | Dresden University of Technology/ Germany   |
| 2020                      | 2 | B.E  | Aeronautical | Sapienza University at Rome, Italy        | M.S Aerospace Engineering                   |
| 2020                      | 1 | B.E. | Civil        | Conventry University, UK                  | M.S.Construction Engineering and Management |
| <a href="#">View File</a> |   |      |              |   |   |

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

| Items                     | Number of students selected/ qualifying |
|---------------------------|---|
| GATE                      | 3                                       |
| TOFEL                     | 4                                       |
| CAT                       | 2                                       |
| GRE                       | 2                                       |
| Civil Services            | 2                                       |
| Any Other                 | 32                                      |
| <a href="#">View File</a> |   |

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

| Activity | Level | Number of Participants |
|----------|-------|------------------------|
|----------|-------|------------------------|

|                           |               |     |
|---------------------------|---------------|-----|
| BADMINTON                 | Inter college | 45  |
| BASKETBALL (M)            | Inter college | 72  |
| KABADDI (M)               | Inter college | 48  |
| CHESS (M)                 | Inter college | 35  |
| FOOTBALL (M)              | Inter college | 72  |
| VOLLEYBALL (M)            | Inter college | 48  |
| CRICKET (M)               | Inter college | 110 |
| VOLLEYBALL (W)            | Inter college | 24  |
| BALL BADMINTON (W)        | Inter college | 20  |
| BADMINTON (W)             | Inter college | 25  |
| <a href="#">View File</a> |               |     |

### 5.3 – Student Participation and Activities

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

| Year | Name of the award/medal | National/ Internaional | Number of awards for Sports | Number of awards for Cultural | Student ID number | Name of the student   |
|------|-------------------------|------------------------|-----------------------------|-------------------------------|-------------------|---|
| 2019 | Gold medal              | National               | 1                           | Nil                           | Nil               | K.Nirmal, S.Balaji, A.Sarathi, E.Vidhya sagar               |
| 2019 | Silver medal            | National               | 1                           | Nil                           | Nil               | Noel Edwin.S, Maheswaran. A, Hariharan.S                    |
| 2019 | Silver medal            | National               | 1                           | Nil                           | Nil               | Kowsalya .S, Geetha.S, Sushmitha. P - Team                  |
| 2019 | Silver medal            | National               | 1                           | Nil                           | Nil               | V.N.Nishar and AP.Ansad - Team                              |
| 2019 | Silver medal            | National               | 5                           | Nil                           | Nil               | P.Velusamy, J.Jabastinjothi, K.Praveen, S.Rajeswari, M.Siva |
| 2019 | Bronze medal            | National               | 1                           | Nil                           | Nil               | R.Sathishmannar   |
| 2019 | Bronze medal            | National               | 1                           | Nil                           | Nil               | Prakash.NR  |

|                           |              |          |   |     |     |                           |
|---------------------------|--------------|----------|---|-----|-----|---------------------------|
|                           |              |          |   |     |     | and Team                  |
| 2019                      | Bronze medal | National | 1 | Nil | Nil | Sabarikrishnan.V and team |
| 2019                      | Bronze medal | National | 1 | Nil | Nil | Anbukumar.B and Team      |
| <a href="#">View File</a> |              |          |   |     |     |                           |

5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

In our Institution, students are actively participating in academic and administrative bodies/committees. The students' representatives are involved in academic committees such as Class Committee, Department Students Association and Professional Societies, etc. Students are also representatives in various administrative committees such as Students Grievance Redressal Committee, Internal Complaints Committee (Prevention of Sexual Harassment) and Anti-ragging Committee. Students also participate and provide feedback on teaching to improve the academic system. Students also participate in extracurricular activities like NSS, NCC and YRC. In continuation of these activities students are participating in several awareness programs in order to have societal awareness on rain water harvesting and plastic-free environment, etc. In addition students actively participate and organise many club activities, viz., Green club, Communication, Design club and Societal activities to explore and emphasise the field of interest. In Macro Miracles club activities student secretaries are deputed to well structure and organize different themes in the club activities. The outstanding performers act as mentors to other 15 students who will be the mentees to receive guidance. The mentor-mentee system of 1:15, focus on counselling students (slow learners) and promote the collaborative learning in academic activities and career guidance. In the department association activities like workshop, symposium, conference, etc., the students' representative is nominated by the students. The key role of the student representative is governing the program committee formation, planning and execution of activities. Majority of the students are registered under the various professional societies like IEI, ICI, CSI, ISTE, EWB, IEEE and ASCE. Through these bodies students regularly attend the programs like workshop, seminar, conference and symposium in reputed institutions, and also they conduct many technical competitions, social activities, site visits and exhibitions, etc.

#### 5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

Alumni Association plays a prime role in networking the graduates with the Institution. Our Institution has an active Alumni Association with the office bearers as given below: Chairman - Dr.S.Raju, Professor and Head/ Information and Technology, 2. Secretary -Dr.N.Viswanathan, Professor and Head / Electronics and Communication Engineering, 3. Treasurer - Mr.S.Premkumar, Assistant Professor, Computer Science and Engineering, and Alumni members. The Alumni Association meets every year and conduct the General Body Meeting to decide important activities such as Alumni day celebration, alumni meet and alumni mentors, etc. The Mahendra alumni meet is conducted at national and international level. In the national level the alumni meets are conducted at Bangalore, Coimbatore, Chennai and various places. The students working in those regions are gathered and alumni day has been celebrated to share their

experience and industrial exposure to the students. Alumni meet is also conducted at international level wherein the students working abroad gather and observe the alumni day. The Institution is initiated a novel Mahendra Alumni Interactive Lecture Series (MAILS), wherein the alumni are invited by each department to deliver special lectures to the students to enable them gain the field exposure, technical skills, employment and entrepreneurship skills. Every department organises around 6-10 MAILS programs in a year, and also alumni mentor have been identified for every year 250 students to guide them for their better placements and technical knowledge sharing, etc. The alumni also help to schedule internships and in-plant training for the students in the various fields of interest. Very importantly, every Department invites the Alumni working in esteemed organizations as Board of Studies members for framing the academic curriculum and syllabus and to get feedback to enhance the present curriculum and syllabus. Also, one distinguished Alumnus is invited for the Result Passing Board meeting of the Institute being conducted during every semester end.

5.4.2 – No. of registered Alumni:

1025

5.4.3 – Alumni contribution during the year (in Rupees) :

350000

5.4.4 – Meetings/activities organized by Alumni Association :

Alumni meeting - 2 Activities - 32

## **CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT**

### **6.1 – Institutional Vision and Leadership**

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

The Institution functions with the method of decentralized governance system. The Head of the Institution is functioning effectively with the culture of participative management. He plans and decides the Academic Calendar for each semester in consultation with the Management and HODs. The Academic Calendar consists of the following: Total no. of Working days, Holidays, Internal Test slots, End Semester Exam fees payment dates and duration, Department Symposiums, FDPs, Reopening date for the next semester, etc. It is circulated amongst all faculty members and students for their information and record. The Heads of the Departments plan and decide the academic activities and assign the responsibilities to the faculty members. Every Department plans to prepare the timetable, subject allocation, purchase and maintenance of equipment and consumables, organizing conferences, symposia, guest lectures and workshops, Innovative and best practices, organizing FDPs, IOT courses and recommends signing MoUs with industries for industrial visits, inplant trainings, internships and placement. The Institution practices participation from stakeholders, which enables the faculty members and students to give their feedback and suggestions for improvement of the academic and co-curricular activities. All the academic activities are decentralized and decisions are taken based on discussion with class committee meetings, department meetings, HODs' meetings with Principal and Chairman. The Head of the Institution coordinates with the departments, administration and management. The Principal conveys all matters in the meeting to HODs, Dean Academics, Training Placement Officer, Librarian and Director of Physical Education, AO, etc. The points discussed in the meeting are communicated to the faculty members, students and others concerned for implementation. The Controller of Examinations plans, conducts and monitors the Internal Tests, End Semester Examinations for each

semester in line with the schedule received from the affiliating university. The Departments organize various Association Activities such as IEEE, ISTE, CSI, IE events, NPTEL Course registration, Guest Lectures, FDPs, Innovation and best practices, Video Classes, Industrial Visits, Internships training, Soft skills Training, Placement Training, Internal Quality Audit, External Audit, IQAC Meetings, Workshops / Conferences. The College organizes Freshers' Day, Women's Day, Engineers' Day, Teachers' Day, Sports day, Annual day, Science day and Graduation Day, Alumni Association Day, etc. The Boards of Studies in each Department prepares the curriculum and syllabi for the UG and PG programmes. It is approved in the Academic Council meeting. The policy decisions are taken in the Governing Council meeting. The Finance Committee meeting and Result Passing Board meetings are conducted periodically. The meeting of other non-statutory Committees such as Anti-ragging Committee, Discipline Committee, Grievance Redressal Committee, Internal Complaints Committee are conducted periodically wherein the representatives of students and faculty members are present and give feedback and opinions. There is a free flow of communication both horizontally and vertically for smooth fashioning and interaction. The Organizational changes and improvement needs are effectively implemented not only based on needs, most importantly taking into account meeting the "Excellence".

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

## 6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

| Strategy Type                        | Details   |
|--------------------------------------|---|
| Admission of Students                | As per the Tamilnadu state Government of Technical Education, Admission rules and regulations, based on Counselling and Management quota are followed. • There shall also be a meritbased, lateral admission of students having Diploma qualification to the second year of all the programmes at the College in accordance with the Government rules applicable for such admissions. • The College website, prospectus and the curriculum design book contain information about the institution and the programmes offered. The prospectus that highlights the details of various programmes of the College is prepared every year prior to the commencement of admissions. The prospectus also gives details of eligibility norms for admission. It is given to the applicants along with the application form. • A customized admission software package has been developed to facilitate the admission process. |
| Industry Interaction / Collaboration | Coimbatore Industrial Infrastructure Association (Co India), Coimbatore • Irrigation Management Training Institute, Trichy • Msme, New Delhi •  |

Arvin Varsity, Chennai • Mangalasmart Energy Systems ,Tirupur • Bypro Technology, Chennai • Infosys Campus Connect, Bangalore • Mection Training Technical Systems, Chennai • Codissia, Coimbatore • Prayojana training Institute • Apex Hightech Institute,Bangalore • Frankinsteins Engineering Laboratory Pvt. Ltd.,Erode • FESTO, Bangalore • ROOTS Industries • SS Techno vision,Coimbatore • REDHAT Academy • Barola Aero sports(P)Ltd • TVS Harita • Hydrabad Acilines • Mangla Smart Energy Solution,Tirupur • General Electrical and Electronics Solution,Salem • KCP Solar Industries,Salem • GA Software Technologies.

Human Resource Management

The selection committee shall prepare a job description and job specification for the candidate to be recruited. • The committee shall augment candidature in a ratio of 1:3 for every position to be filled from any or all of the following sources: Advertisements in the Newspapers, Files maintained for storing the unsolicited applications and References. • If the committee deems it fit, may also conduct Walk in Interviews for augmenting the required candidates. • The committee shall shortlist the candidates in the following processes: Personal interviews and class room demonstrations. • The committee shall finalize the short listed candidates and submit their recommendations along with the personal data sheets of the candidates to the Chairman/ Managing Director who in turn will approve the decisions of the committee on the appointment. • An Offer of appointment shall be released by the Principal through HR.

Human Resource Management

The Principal shall assess in the month of April every year, the staff requirement for the subsequent academic year. • He will obtain the staff requirement lists from all the Heads of department and arrive at the number of faculty members, Lab assistants and administrative staff required with the following guidelines in mind. • He will consider appointing a Professor to be the Head of every discipline, besides the number of Assistant Professors and Lecturers required in accordance with

the teacher student ratio prescribed herein. • The teacher student ratio shall be 1:20 and for this purpose the Professor shall also be included in counting the number of teachers. • He will appoint a selection committee for recruitment in each discipline, composed of the Principal, HOD and the Department's Advisors/Experts from the neighboring institutions.

Library, ICT and Physical Infrastructure / Instrumentation

During this academic year 209 research papers were published in National and International Journals. 112 papers were presented in International Conferences and 83 papers were presented in national Conferences and seminars. 14 research scholars have obtained their Ph. D. from the research centre of our college. 2 major projects and 5 minor projects were sanctioned by funding agencies. 189 teachers have participated in Orientation Programmes and Refresher Courses. 5 Proceedings have been published.

Research and Development

During this academic year 209 research papers were published in National and International Journals. 112 papers were presented in International Conferences and 83 papers were presented in national Conferences and seminars. 14 research scholars have obtained their Ph. D. from the research centre of our college. 2 major projects and 5 minor projects were sanctioned by funding agencies. 189 teachers have participated in Orientation Programmes and Refresher Courses. 5 Proceedings have been published.

Examination and Evaluation

Semester system with Continuous Internal Assessment (CIA) is followed. • The Principal and the Heads of the various Departments monitor the performance of the students by making a through analysis after every internal test and end semester examination. • The teachers make an analysis of the performance of students after every internal test and end semester examination in the Departmental Meetings. • The performance of students is analyzed in the Academic Council meeting in every December and by the Governing Body meetings in March. • Result passing board meeting is being conducted before publishing the results of the end semester examination.

|                        |  |
|------------------------|--|
| Teaching and Learning  | <p>College provides quality education in various disciplines ranging from English to Professional courses. • Student creativity can be fostered. • The college also organizes special teaching and coaching classes for such students to enhance their employability and competitive strength. • Learning is based on context so generalizing learning to new contexts is not spontaneous but instead needs to be facilitated. • Inbasket training methodology for UG PG students enables them to acquire the skills required by the corporate trend. • Meaningful learning is initiated through guided teaching and guided library assignments, group discussion, seminars, debates, quiz, viva, etc. • Focusing on research the college initiated research tasks for the students as a part of extracurricular activity through project work, on the spot study, and survey.</p> |
| Curriculum Development | <p>Curriculum Development • Curriculum under Choice Based Credit System enables the Placement Cell to conduct Placement training so as to help students for acquiring the necessary soft skills leading to better employment opportunities. • The Choice Based Credit System followed at present in the college facilitates a flexible and wide range of selection of prescribed papers for students. • Communication and Soft Skills Based Elective courses, open elective and Industry based subjects are available to students irrespective of their major subjects.</p>  |

6.2.2 – Implementation of e-governance in areas of operations:

| E-governance area        | Details  |
|--------------------------|--|
| Planning and Development | <p>Perspective plan for the period 2018-2023 uploaded in the ERP Software. Milestones achieved are updated. Plans to be achieved are followed up by periodical reviews.</p>                                  |
| Administration           | <p>The college has implemented e-Attendance Management System for faculty and staff. Various activities such as Scholarships, HR functions, event management etc., are managed through the ERP Software.</p> |
| Finance and Accounts     | Finance and Accounts   |



|                               |   |
|-------------------------------|---|
| Student Admission and Support | Admission is done with Management Information System for both Government and Consortium Quota students. The profiles of all the students are collected, maintained and used digitally. This is also shared with affiliating University. All the data regarding different student categories and the support provided through scholarships are managed through ERP Software  |
| Examination                   | All the examination related activities such as student's registration, seating arrangement, hall allocation, Internal Evaluation marks, End Semester Examination marks etc., are managed by online Examination System Web Portal of Anna University, Chennai. Both Staff and students can login with their credentials in the web portal to do any exam related activity. However the tests conducted for content beyond syllabus is maintained digitally by the faculty members in the Department. |

### 6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

| Year | Name of Teacher                  | Name of conference/ workshop attended for which financial support provided                | Name of the professional body for which membership fee is provided | Amount of support |
|------|----------------------------------|---|--|-------------------|
| 2019 | Dr.K.Vidhya                      | Nill  | ASCE Membeship   | 13000             |
| 2019 | Dr.K.Vidhya                      | Nill  | ASCE Students Chapter  | 3000              |
| 2019 | Dr.C.Dhavamani                   | Olirum Uzhavum  | CII at Varalakshmi Hall, Salem                                     | 25000             |
| 2019 | Dr.C.Dhavamani<br>Mr.P.Sivakumar | Meeting with Mahindra Research Development  | Mahindra Research Development                                      | 15000             |
| 2019 | Dr.C.Dhavamani<br>Dr.K.Vidhya    | Academic Excellence - Successful Autonomous through NAAC 'A/A' Grade Or NBA Accreditation | ASSAAN Educare Pvt Ltd   | 18000             |
| 2019 | Mr.Srinivasa Perumal Mr.         | CATIA 3DX experience  | Harita Tech Serv ,   | 12000             |

|                           |                            |                                     |                                      |      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|------|
|                           | Senthil Kumaran            |                                     | Coimbatore                           |      |
| 2020                      | Dr.C.Dhavamani and         | IIC Innovation Ambassador Programme | AICTE and MHRD Innovation Cell       | 5000 |
| 2020                      | Mr.P.Sivakumar             | Training at NIT-Simens COE Testing  | NIT,Trichy                           | 1000 |
| 2019                      | Mr.P.Sivakumar             | How to write review paper           | Anna University , Chennai            | 1000 |
| 2019                      | Mr.P.Dhamodharan and Mohan | International Conference            | SRM Institute of Technology, Chennai | 3000 |
| <a href="#">View File</a> |                            |                                     |                                      |      |

6.3.2 – Number of professional development / administrative training programmes organized by the Colleges for teaching and non teaching staff during the year

| Year | Title of the professional development programme organised for teaching staff | Title of the administrative training programme organised for non-teaching staff | From date  | To Date    | Number of participants (Teaching staff) | Number of participants (non-teaching staff) |
|------|--|---|------------|------------|---|---|
| 2019 | Nil  | Fire Safety and rescue Operations   | 27/08/2019 | Nil        | Nil                                     | 25  |
| 2020 | Nil  | Road Safety   | 25/02/2020 | Nil        | Nil                                     | 35  |
| 2020 | Nil  | Workshop on MS Office   | 07/03/2020 | Nil        | Nil                                     | 45  |
| 2020 | Workshop on CO and PO, PSOs and PEOs mapping                                 | Nil   | 03/02/2020 | 14/02/2020 | 153                                     | Nil   |
| 2019 | Outcome Based Education, Blooms Taxonomy, Higher Order thinking              | Nil   | 20/11/2019 | 22/11/2019 | 145                                     | Nil   |
| 2019 | Teaching Innovations Methods   | Nil   | 12/12/2019 | 13/12/2019 | 125                                     | Nil   |
| 2020 | Research Proposal  | Nil   | 09/01/2020 | 10/01/2020 | 136                                     | Nil   |

|                           |  |     |            |            |     |     |
|---------------------------|--|-----|------------|------------|-----|-----|
|                           | writing and IPR  |     |            |            |     |     |
| 2020                      | Startups, Innovations and Entrepreneur   | Nil | 24/01/2020 | 25/01/2020 | 152 | Nil |
| 2020                      | AICTE - AQIS Sponsored Short Term Training Program on Low Carbon Energy Building | Nil | 27/07/2020 | 01/08/2020 | 133 | Nil |
| <a href="#">View File</a> |  |     |            |            |     |     |

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

| Title of the professional development programme                                     | Number of teachers who attended | From Date  | To date    | Duration |
|---|---------------------------------|------------|------------|----------|
| Digital Teaching Techniques   | 2                               | 29/06/2020 | 04/07/2020 | 7        |
| Cyber Security  | 1                               | 27/06/2020 | 01/07/2020 | 6        |
| Blockchain  | 1                               | 22/06/2020 | 26/06/2020 | 5        |
| Learning Experience   | 1                               | 16/06/2020 | 29/06/2020 | 14       |
| Cyber Security Techniques and Tools   | 2                               | 15/06/2020 | 19/06/2020 | 5        |
| Artificial Intelligence   | 2                               | 08/06/2020 | 12/06/2020 | 5        |
| Sustainability Aspects and Recent Trends in Civil Engineering - The Future Scenario | 2                               | 14/07/2020 | 18/07/2020 | 5        |
| Advancements in Concrete Technology   | 2                               | 12/05/2020 | 16/05/2020 | 5        |
| Fiber Reinforced Concrete and its application                                       | 1                               | 18/11/2019 | 22/11/2019 | 5        |

|  |   |            |            |    |
|--|---|------------|------------|----|
| ICT Tools for Teaching, Learning Process and Institute | 1 | 10/08/2020 | 21/08/2020 | 14 |
| <a href="#">View File</a>                              |   |            |            |    |

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

| Teaching  |           | Non-teaching |           |
|-----------|-----------|--------------|-----------|
| Permanent | Full Time | Permanent    | Full Time |
| 22        | 22        | 5            | 5         |

6.3.5 – Welfare schemes for

| Teaching  | Non-teaching  | Students  |
|---|---|---|
| <p>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 Online NPTEL fees reimbursement</p> | <p>Educational support to the children of the staff. Marriage gifts with the sanction of one week leave. Granting medical leave / maternity leave. Free transport facilities. Special Study Leave (SSL) for higher studies. Incentive for attending orientation programmes, workshops and conferences. Gifts during Teachers' Day celebrations. Faculty Retreat. Incentive for dress materials Incentive for vehicle utilization or transport allowance Incentive for dress materials for housekeeping staff. Subsidised canteen fare Group Insurance</p> | <p>Government Scholarships Management Scholarships Free Transport facilities to SC/ST Students Free food Hostel facilities to SC/ST Students Cash awards for University Rank Holders, Semester Toppers Cash awards for good performers in sports Cultural</p> |

**6.4 – Financial Management and Resource Mobilization**

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

|   |
|---|
| <p>Mahendra Educational Trust has qualified Chartered Accountants (internal Auditors) to supervise the Internal Audit Functions and ensure that all the procedures and guidelines set by the Board of Governance and Management are strictly adhered to while carrying out the transactions. The Chartered Accountants also ensure that the recording of transactions are carried out in the ERP and participate in the purchase procedure/approval of purchases initiated by the respective HOD/ Dean of the faculty. Apart from the above Mahendra Educational Trust has two External Internal Auditors who represent</p> |
|---|

very reputed practicing Chartered Accountants Firm for carrying out the Procedural, Transaction and compliance Audit and submit their reports. They submit either Quarterly or Half Yearly Audit reports commenting on their observations and highlighting the corrective measures that need to be taken to ensure proper financial transactions and management.

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

| Name of the non government funding agencies /individuals | Funds/ Grnats received in Rs. | Purpose           |
|--|-------------------------------|-------------------|
| Non government Organizations                             | 3887840                       | Consultancy works |
| <a href="#">View File</a>                                |                               |                   |

6.4.3 – Total corpus fund generated

|         |
|---------|
| 8982121 |
|---------|

## 6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

| Audit Type     | External |        | Internal |           |
|----------------|----------|--------|----------|-----------|
|                | Yes/No   | Agency | Yes/No   | Authority |
| Academic       | Yes      | IQAC   | Yes      | IQAC      |
| Administrative | Yes      | IQAC   | Yes      | IQAC      |

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

- After completing the internal exams, progress reports are sent to the parents and informed to attend the meeting.
- During the ParentTeacher Meetings the parents are informed of the academic progress of their wards and necessary remedial measures are suggested.
- Feedback is obtained from the parents in a structured format
- Some of their useful suggestions have been implemented. To mention a few - improved facilities at the hostel, computer training to students pursuing non computer courses, skill oriented programmes, Programmes to improve language proficiency of students etc.

6.5.3 – Development programmes for support staff (at least three)

- A week of Orientation Programs was conducted.
- Practicing office tools for supporting staff members organised by department of CSE from 22nd April to 24th April 2019 (3 days)
- Computer Skill training
- Communication skills training
- Hands on training have been given to the Supporting staff to handle the instruments and first aid in the Laboratory under College Scheme.
- First Aid Programme
- Fire and safety measures

6.5.4 – Post Accreditation initiative(s) (mention at least three)

Some New Courses have been introduced Aerospace Engineering , Cyber Security and Artificial Intelligence Engineering Established Centre of Excellence in Artificial Intelligence and Machine Learning Administrative, Staff attendance and Student information system of electronic database have been initiated. Introduction of MTRACE (tie up with SAILAS academy) training classes for attending competitive examinations and Conduction of Talent Recharging Summer camp for students

6.5.5 – Internal Quality Assurance System Details

|  |     |
|--|-----|
| a) Submission of Data for AISHE portal | Yes |
|--|-----|

|                                  |     |
|----------------------------------|-----|
| b)Participation in NIRF          | Yes |
| c)ISO certification              | No  |
| d)NBA or any other quality audit | Yes |

6.5.6 – Number of Quality Initiatives undertaken during the year

| Year                      | Name of quality initiative by IQAC                      | Date of conducting IQAC | Duration From | Duration To | Number of participants |
|---------------------------|---|-------------------------|---------------|-------------|------------------------|
| 2019                      | Internal Academic auditing                              | 05/11/2019              | 05/11/2019    | 30/11/2019  | 240                    |
| 2019                      | Mahendra Academy for Technical Training and Placement   | 05/11/2019              | 05/11/2019    | 15/11/2019  | 925                    |
| 2019                      | IQAC External Audit                                     | 08/06/2019              | 08/06/2019    | 15/06/2019  | 240                    |
| 2019                      | CII – Agri Expo (Olirum Uzhavum)                        | 22/06/2019              | 22/06/2019    | 23/06/2019  | 120                    |
| 2019                      | YI awareness  | 07/08/2019              | 07/08/2019    | 07/08/2019  | 142                    |
| 2019                      | Successful Autonomous through NAAC Or NBA Accreditation | 28/09/2019              | 28/09/2019    | 28/09/2019  | 4                      |
| 2019                      | M-First   | 09/10/2019              | 09/10/2019    | 09/10/2019  | 625                    |
| 2019                      | Faculty Enrichment Programme Series (FEPS) Orientation  | 19/10/2019              | 19/10/2019    | 16/11/2019  | 240                    |
| 2019                      | First year Induction Programme                          | 06/08/2019              | 06/08/2019    | 19/08/2019  | 835                    |
| <a href="#">View File</a> |   |                         |               |             |                        |

**CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES**

**7.1 – Institutional Values and Social Responsibilities**

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

| Title of the programme | Period from | Period To | Number of Participants |      |
|------------------------|-------------|-----------|------------------------|------|
|                        |             |           | Female                 | Male |
| Women in Cyber Space   | 30/08/2019  | Nil       | 250                    | Nil  |
| Yoga Day               | 26/02/2019  | Nil       | 75                     | Nil  |

|                                 |            |            |     |     |
|---------------------------------|------------|------------|-----|-----|
| Youth Empowerment Yoga Practice | 08/08/2019 | 10/08/2019 | 210 | Nil |
| Womens Day Celebration          | 09/03/2020 | Nil        | 225 | Nil |
| National Nutrients Fest         | 25/09/2019 | Nil        | 160 | Nil |
| Workshop on Women-power         | 16/06/2020 | 18/06/2020 | 98  | Nil |
| Yoga and Meditation             | 09/09/2019 | 12/09/2019 | Nil | 450 |
| General Gardening               | 12/08/2019 | Nil        | Nil | 375 |
| To Built Mentor                 | 13/08/2020 | Nil        | Nil | 525 |
| Pshychological Counselling      | 14/08/2019 | 18/08/2019 | Nil | 850 |

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources

The college has taken steps to keep the college campus environment-friendly. For Energy conservation, transparent windows in buildings facilitate the maximum utilization of natural light source in all the rooms. The traditional lighting systems are replaced with CFL, LED lighting system. Students, Faculty and Staff members always ensure that the electrical equipment and lights are "Switched off" when not in use. Solar energy is used in the parking areas, lights on roads in dark and other areas. The college has bio-methanation reactor to minimize the LPG usage. There is a Proposal for erecting a windmill power generator in our campus through student's project. For Water harvesting the campus has adequate facilities to collect the rain water to improve the ground water level. Efforts for carbon neutrality are taken by the college through adequate arrangements for the parking of vehicles. Emission test certificates are made mandatory for the vehicles in the campus. Cigarettes and tobacco products are strictly banned within 100 meters of the campus. Majority of the students are utilizing the college transportation facilities to minimize the individual transportation. The college has green campus with many trees. Plantation programmes are regularly organized by NSS to inculcate amongst the students the values of environmental-care and sustainability for green and clean campus. Our Institution is part of the "Green Kalam Project" and to create green campus, many saplings have been planted. Effluent treatment and recycling plant is installed to treat sewage and waste water on the campus. Whether environmental audit was conducted? Though there is no formal green audit system, the students, faculty and staff members are encouraged by the NSS unit to keep the campus always green by planting more trees periodically. All buildings of the institution are designed by the architect in considering the maximum utilization of natural resources such as Light, Air for good ventilation and energy conservation.

7.1.3 – Differently abled (Divyangjan) friendliness

| Item facilities     | Yes/No | Number of beneficiaries |
|---------------------|--------|-------------------------|
| Physical facilities | Yes    | Nil                     |
| Provision for lift  | Yes    | Nil                     |

|  |     |     |
|--|-----|-----|
| Ramp/Rails   | Yes | Nil |
| Braille Software/facilities                              | Yes | Nil |
| Scribes for examination                                  | Yes | Nil |
| Rest Rooms   | Yes | Nil |
| Special skill development for differently abled students | Yes | Nil |
| Any other similar facility                               | Yes | Nil |

#### 7.1.4 – Inclusion and Situatedness

| Year | Number of initiatives to address locational advantages and disadvantages | Number of initiatives taken to engage with and contribute to local community | Date       | Duration | Name of initiative                     | Issues addressed                                   | Number of participating students and staff |
|------|--|--|------------|----------|--|--|--|
| 2020 | 4  | 4  | 15/02/2020 | 1        | Plant tress in orphanage Home          | To make green environment                          | 25   |
| 2020 | 1  | 1  | 11/01/2020 | 1        | Blood Donation                         | To save lifes                                      | 40   |
| 2020 | 2  | 2  | 24/01/2020 | 1        | Workshop on Airshow                    | To create awareness Science Exploration            | 35   |
| 2020 | 3  | 3  | 31/01/2020 | 1        | Seed Ball distribution                 | To avoid Globalwarming                             | 25   |
| 2020 | 2  | 2  | 11/01/2020 | 1        | Rainwater Harvesting                   | To Create the awareness about rainwater harvesting | 40   |
| 2020 | 4  | 4  | 04/01/2020 | 1        | Cyber Security Awarness in govt School | To create Safety Awarness                          | 25   |
| 2020 | 5  | 5  | 24/01/2020 | 1        | Plastic Free Zone                      | Educate the people                                 | 30   |



|                           |   |   |            |   |  |                                      |    |
|---------------------------|---|---|------------|---|--|--------------------------------------|----|
|                           |   |   |            |   |  | about Banned Plastic                 |    |
| 2020                      | 3 | 3 | 01/02/2020 | 1 | Health and Hygiene , Awareness Progran (Govt. El ernentary school, | To improve the physical Health       | 25 |
| 2020                      | 2 | 2 | 08/02/2020 | 1 | Electrical Safety El ectrical Safety                               | To create Safety in Home Appl iances | 20 |
| <a href="#">View File</a> |   |   |            |   |  |                                      |    |

#### 7.1.5 – Human Values and Professional Ethics

| Title                        | Date of publication | Follow up(max 100 words)  |
|------------------------------|---------------------|---|
| Professional Ethics Handbook | 10/01/2019          | Professional Ethics Handbook 10/01/2019 1.) Duties and responsibilities of PROFESSOR / DEAN/HOD. 1. Providing leadership to both undergraduates and postgraduates in relevant field of specialization. 2. Research and research guidance. 3. Consultancy services. 4. Teaching, including laboratory development writing of books monograph. 5. Evaluations of tutorials, assignments, journals, answer papers. 6. Interaction with industry. 7. Continuing education activities. 8. Students counseling. 9. Interaction with other institutions, Universities at state, national and international levels. 10. Organizing seminars, workshops, summer schools and winter schools for teachers and professionals. 11. Publishing papers in national and international journals. 12. Fellowship of |

professionals' bodies.  
13. Industrial liaisoning to promote summer and final placements. 14. Review of academic activities of the department periodically. 15. Maintenance of dead stock, semi consumable, consumable registers with the help of lab incharge 16. To prepare display notices, mark sheets attendance sheets etc. pertaining to the students of the department. 17. To send attendance records, letters regarding attendance, discipline and other activities with the help of class teachers. 18. To organize for accreditation and make presentations to the visiting expert terms. 19. To undertake and implement consultancy projects to identify various funding agencies and harness funds for the development of the department/institutions. 20. Any other duties assigned by the Principal from time to time. 21. Shall conduct him/her befitting the noble profession of teaching by desisting himself/herself his colleagues from the temptation of private tuition and indulging in unfair practices. 22. Organize parents meet/HR meets in association with

T P 2.) JOB

RESPOSIBILITIES OF  
ASSOCIATE  
PROFESSOR/ASSISTNAT  
PROFESSOR 1. Teaching and ensuring attendance of students as per University norms. 2. Planning and implementation of instructions received from Head/principal. 3.

Student's assessment and evaluation. 4. Developing resource material for teaching and learning. 5. Extension of services to the industry and community. 6. Continuing education activities. 7. Co-curricular and extra-curricular activities. 8. Students counseling/ mentoring scheme implementation. 9. R D work on industrial problems consultancy. 10. Liaison with parents and community. 11. Publication of research papers, at least one in a semester. 12. Participate at least in one seminar/conference/workshop in an academic year. 13. Participation in departmental administration.(Lab Management) 14. Shall become member of at least two relevant professional bodies at his/her own cost. 15. Contribute to the activities sustaining accreditation of the institute. 16. Assist in summer and final placement activities. 17. Examination work pertaining to College University such as organizing supervision and assessment etc. 18. Arrangement of remedial classes. 19. Generation of resources from various funding agencies. 20. Upgrading of qualifications. 21. Writing of books monographs. 22. Any other duties assigned by the Management and Principal from time to time. 4.)

JOB RESPONSIBILITIES OF LAB. INSTRUCTOR. 1. To draw the lab schedules for the students and display on the board. 2. To record and maintain

their attendance of the students. 3. To ensure discipline of the students in the laboratory. 4. To assist students in practicals in the laboratory. 5. To conduct lab examination as and when required. 6. To assist the system administrator to maintain the network and the computers. 7. To maintain database of marks of various exams and assist faculty member in compilation submission of term work, preparation of marks lists. 8. To assist the faculty member in conducting lab sessions of their students. 9. To maintain the dead stock /consumable/semi consumable registers of respective laboratories. 10. To maintain the continuous assessment records of students in respective term work. 11. Maintenance of all instruments/equipments in the respective laboratories. 12. To carry out any other duties assigned by the faculty member/Professor/Head/Principal. 13. To take care of day to day cleanliness see that the laboratories are kept in presentable form experiment setup and staking the instruments at their proper stacking places. 14. To check at least once in a week working of instruments equipments under laboratory. 15. To prepare the requirement of consumables for the lab place indent for the same. 5.) JOB RESPONSIBILITIES OF PLACEMENT OFFICER. 1. Prepare a data bank of potential industries for

placements and keep updating. 2. Initiate correspondence with industries and organize recruitment process for placements. 3. Organize HR meet to strengthen rapport with corporate world. 4. Organize printing of placement Brochures/soft copies of information regarding student's placements. 5. Obtain feedback from industries regarding strength and weaknesses of students who have been placed finally. 6. Obtain feedback from industries regarding performance of placed students (one year or more) and obtain inputs additional training/grooming of current students at least for their year. 7. Grooming the students for placements by organizing soft skill trainings. 8. Counseling of students regarding emerging areas of job opportunities. 9. Organize talks by experts to motivate students to seek job opportunities in emerging areas. 10. Give feedback to the faculty about strength weaknesses of students to enable them to initiate appropriate grooming activities. 11. To pay regular visit to industries establish close repo with placement/consultancies /R D/training establishment of linkages under guidance of Principal. 12. Any other duties assigned by the Principal from time to time.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

| Activity               | Duration From | Duration To | Number of participants |
|------------------------|---------------|-------------|------------------------|
| Awareness Programme on | 31/07/2019    | Nil         | 112                    |

|   |            |            |     |
|---|------------|------------|-----|
| Professional Ethics and Human Values                              |            |            |     |
| Plastic Free Zone   | 24/01/2020 | Nil        | 30  |
| Health and Hygiene , Awarcness Progran (Govt. Elernentary school, | 01/02/2020 | Nil        | 25  |
| Blood Donation  | 11/01/2020 | Nil        | 40  |
| Road Safety Awareness Programme                                   | 15/02/2020 | Nil        | 35  |
| World environmental day   | 05/06/2019 | Nil        | 250 |
| International yoga day  | 21/06/2019 | Nil        | 275 |
| World aids day  | 01/12/2019 | Nil        | 150 |
| Special camp  | 05/02/2020 | 11/02/2020 | 25  |
| Corana Awarness   | 12/03/2020 | Nil        | 150 |

[View File](#)

#### 7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

1. The NSS unit of our College regularly organizes Plantation programme to make the campus more eco-friendly. Trees reduce carbon dioxide, the main green house gas that contributes to global warming. Trees increase oxygen level in environment, and make the campus airy. 2. The Department of Mechatronics in association with National Girls Hr. Sec. School, Rasipuram organized an awareness programme on "Tree Plantation" on 23rd February 2019 at National Girls Hr. Sec. School Ground. 3. NSS unit also organized Plastic free awareness rally to make the environment clean and sustainable. In addition to students many public participated on their own interest in the plastic free awareness rally around the village. 4. The college conducted clean survey analysis for finding dengue free campus during the workshop on Challenges of Dengue and its Analysis using Data Analytics Tools by Mr.K.Kalvikarasan, Entomologist, Namakkal District. 2. The aim of the program was to assess the level of knowledge and practice of dengue control amongst the public, and to explore the factors affecting practice of dengue control in the rural area. An awareness program was conducted in a semiurban town of Mallasamudram, with the help of our II year students and provided Nilavembu Kashayam for more than 60 families and acknowledged as "Dengue free House". 5. Awareness created among the public against unnecessary honking, working with the Govt. authorities to enforce the prevailing rules and also bring about new regulation based on the model of other "Honk Free Cities" in the world. This campaign against unnecessary honking, spreading social awareness regarding noise pollution and initiating action at the community level to reduce the growing menace of vehicle honking. The vehicle users should make a conscious decision not to blare the horn, except when it is really necessary.

#### 7.2 – Best Practices

##### 7.2.1 – Describe at least two institutional best practices

**PRACTICE -I Digital Learning - Innovation in Teaching - Learning Methodology -**  
**OBJECTIVES OF THE PRACTICE:** • To develop effective self-directed learning skills. • To make the teaching learning process more interesting and to improve student performance in their academics. • To give hands-on experience and in-depth knowledge by using lecture videos to the students from their first year.

• To sharpen critical thinking skills, which are the basis for the development of analytic reasoning. • To use the advanced technology in the teaching learning process. • To post assignments, questions, readings, and grades as well as ways to interact with the students through forums or chats. THE CONTEXT:. Students are changing, and those once effective teaching methods are becoming stale. Faculty, should find a new way to engage students. Hence, Online classes is evolved to provide theory knowledge and hands-on experience to all the students with an appropriate schedule. This supplements teaching and learning in traditional classroom environments as they can provide new opportunities for enriching existing curriculum through creative, authentic and/or flexible, nonlinear learning experiences. It provides space for participation, collaboration, distribution, dispersion of expertise, and relatedness. It helps in share and search for knowledge which contributes to informal learning. One of the biggest challenges in online education is the lack of interaction between students where as google class room try to provide more opportunities for communication. Online course programs like Coursera, NPTEL helps the students to enrich their knowledge. THE PRACTICE: This programme is designed in such a way that, lecture will be taken through PowerPoint / video presentation by professors through google meet. Faculties post assignments, questions, relevant articles, research and current knowledge and many more. The link will be sent to each student by e-mail and WhatsApp.

The students access the virtual classroom on a very regular basis which encourages outside the classroom learning. For online courses, there will be a lecture video which will be taken by well renowned professors. After completing the course, exam will be conducted and the person who score higher marks will be given certificates and the mentor will also be getting the certificate .

EVIDENCE OF SUCCESS: Reports are generated through the exams conducted. Multiple tests are conducted and the progress of the students are tracked with the help of these reports. The improvement of the students can be traced and if there are no improvements, the students are helped in the areas that they are weak at, as per the report. This enables the students to follow a planned and defined path to achieve their goals . The person who is performing well in online course will be appreciated and rewarded by the college. PROBLEMS

ENCOUNTERED AND RESOURCES REQUIRED: The major resource required is experienced faculty members, good content to interact students, updated systems with good internet connectivity. Students are provided with license for doing online course at free of cost. Students should have proper internet connection to attend the sessions without interruption. PRACTICE -II TITLE OF THE PRACTICE: -

Plastic Free Green Campus OBJECTIVES OF THE PRACTICE: • To inculcate Environmental awareness in students • To make Environmental consciousness as part the daily life • To bring a change in attitude towards environmental protection • To make the campus plastic free, green • Effective use of waste management THE CONTEXT:. For the past few decades the world has realised the importance of environmental protection and we are witnessing a paradigm shift in almost all discourses towards a better, less polluted, green environment as the pressing need of the hour. Environmental deterioration has reached such an alarming proportion that the only solution is a fundamental shift in attitude. This is where the role of students as the future citizens and the ambassadors of change come in handy. Our college wanted to tap this potential of students and create in them heightened awareness for environmental protection. THE PRACTICE: A green protocol is implemented in the campus and Green protocol statement is fixed in all the class rooms and other relevant places. Plastic is banned in the campus and steel vessels, glasses, green leaves etc are used. Use of plastic water bottles is not completely banned but reduced to the maximum extent. Effective waste management system is also implemented by collecting solid waste, bio waste and electronic waste separately. EVIDENCE OF SUCCESS: Campus has become cleaner, litre free and plastic free. There is heightened awareness in students, which is evident in their participation in a number of

extension activities related to environment like Tree Plantation, Cleaning activities under NSS, activities under Eco and swachh Bharath club etc. PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED: Additional cost needed for the implementation of green protocol caused initial problems. Though everyone is aware of the environmental crisis most of them consider it as a distant phenomenon. So implementation of the programme was little bit difficult in the beginning but awareness classes and activities were conducted thru Eco and swachh Bharath club to create more awareness among student community.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

<http://www.mahendra.info/igac.php>

### 7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

The vision of our College is to be an internationally recognized institute for engineering education and research with ethical values. So the primary objective of the Institution is the pursuit of Academic Excellence and Placements. The technical knowledge gained by the students is complimented by imbibing interpersonal skills and spirit of entrepreneurship that makes them competitive enough to face the global challenges and emerge as achievers. To achieve this, the College has focused on the distinctive area of establishing various Centres of Excellence in collaboration with prominent industries, through which students achieve their academic excellence to meet industrial standards. Our College has established TVS Harita Techserve Research Center for New Product Development and Manufacturing Technologies, which was inaugurated at MEC campus on 11th March 2014. The main objective is to create a Pool of Students with Strong Industry Ready Talent, undergoing Engineering. This has helped to bridge the gap between industry requirements and skills taught in academic course and greatly enabled to groom Engineers who are highly conversant with Design processes involving need finding, ethnographic field work, rapid prototyping and testing. So far more than 40 students were placed in reputed companies like VOLVO, Atlas Copco, SCL, Honey well, TVS motors, based on this Tie-up. Similarly the Centre of Excellence in Formwork Engineering in collaboration with LT Ltd., was established on 9th November 2017 at Mahendra Engineering College. From this Centre of Excellence students gain valuable information on various formwork systems, tools and components used in formwork, different bonds of brick masonry and reinforcement details of various elements. Through the Centre of Excellence we provide training to masons, mazdoor and engineers about various formwork systems and new technologies used as recent trends. We also conduct several certified courses in formwork engineering inviting participants from various institutions. MEC-NI LabVIEW Academy jointly with National Instruments under their Planet NI (Nurturing Innovation) framework which strives to increase the employability of Indian engineering graduates by creating Centre of Excellence in Engineering Colleges and Universities which will provide cost effective access to world class latest technology through classroom teaching-learning. Escorts Training and Development Center (ETDC) is established in February 2017 at our College to organise technical programs such as Internship, Training, Project works and Research for the Agriculture Engineering students. A Centre of Excellence in Artificial Intelligence and Machine Learning is established at our College in collaboration with Intel, Next Wealth and Happiest Minds in June 2019. This CoE in AI/ML CoE offers courses on Artificial Intelligence, Python Programming and Image processing for Computer vision. Around 40 Students and 5 faculty members are trained by Next Wealth Private Limited, Happiest Minds, and Mind Tree. Intel donated 45 Parallel Studio XE Cluster edition licence software, each



worth of USD 3200, for learning. Some of the students are placed in Happiest Minds, Mind tree and other companies that use AI and app development.

Provide the weblink of the institution

<http://www.mahendra.info/>

### **8.Future Plans of Actions for Next Academic Year**

Future plan • To tieup with premier academic institutions and local industries for enhanced exposure. • To organize workshops and conferences by collaborating with Industries. • The college has planned to build Alumni centres in important cities in India and Abroad. • Initiate to launch programs for aptitude and technical test for PG/UG final year students. This may include personality development workshops, follows up session and group discussion, group counselling. • To establish Virtual laboratories for different practical labs. • To seek approvals for additional professional courses so as to meet the demands of changing industrial scenario. • To establish smart classrooms in all departments to take teaching learning process to new heights . • To promote our institution in NIRF and ARIIA raking. • To Celebrate Silver Jubilee Celebrations • To conduct International Conference • To collaborate more foreign universities • To establish centre of excellence for all departments • To start minimum 10 start ups through incubation centres. • To renew NAAC cycle 2. • To plan for NBA accreditation for 5 departments.