

# **SELF STUDY REPORT**

**FOR**

**1<sup>st</sup> CYCLE OF ACCREDITATION**

**MAHATMA GANDHI MISSION'S COLLEGE OF  
ENGINEERING**

NEAR AIRPORT HINGOLI ROAD NANDED

431605

[www.mgmcen.ac.in](http://www.mgmcen.ac.in)

**SSR SUBMITTED DATE: 28-02-2018**

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**February 2018**

# **1. EXECUTIVE SUMMARY**

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## **1.1 INTRODUCTION**

We are pleased to present our SSR for consideration to the NAAC Authorities.

MGM's College of Engineering, Nanded a self financed, un-aided Engineering Institute was started in 1984 by Mahatma Gandhi Mission a charitable Trust, serving the Nation in education and health sector with more than 60 Institutions across Maharashtra and NOIDA.

There are 5 UG, 6 PG programs and a Research Centre with total students and staff population of more than 2000.

We have a lush green campus spread over 17.5 acres with built up area more than 1.5 lakhs sft.

Since 1984 we were affiliated to Marathwada University, Aurangabad. Further affiliation got shifted to SRTMU Nanded in 1994. Since 2017-18 affiliation has been changed to Dr Babasaheb Ambedkar Technological University, Lonere.

We are the first Engineering Institute in Marathwada region to get NBA accreditation in 2006 and were given Grade 'A' by the State Government.

Bringing in continuous improvement in every aspect of functioning is our commitment. Teaching learning supplemented with value added and personality development courses, utilization of ICT strengthen the academics. Professional associations of the students take care of co-curricular activities. Students' clubs working for environmental activities, Centre for Astronomy and Space Technology are our special features.

ERP supporting the Administration for the academic, financial and general functioning of the Institute keeps the updated information.

Students in uniform, morning National Anthem starts the day with higher energy nurturing spirit of unity and harmony.

We take pride in our alumni working in organizations of repute World over.

### **Vision**

MGM's College of Engineering aspires to produce globally proficient engineers nurturing Creativity and Innovation, Research and Entrepreneurial attitude with Human Values amongst its students.

### **Mission**

To impart quality Engineering Education to the students to benefit society by creating best Professionals, Researchers and Entrepreneurs fostering Culture of Collaboration and Excellence with Human Values on

sustainable basis.

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### Institutional Strength

- Our primary strength lies in well qualified and competent management.
- Director is same since inception. We have a good team comprising of the faculty having maximum service length.
- We always have recorded maximum percentage results in the university.
- We had got NBA accreditation. We had been awarded Grade 'A' by the State Government and having permanent university affiliation.
- We are the First preferred un-aided Institute in this region.
- We have well equipped laboratories with state of the art infrastructure and lot of greenery complimenting for conducive environment.
- We have Remote Centre of IIT Bombay with four stars awarded, organising various Distance Education Programs in the form of Interactive online lectures by IIT professors from Bombay and Kharagpur.
- The Director has worked as Faculty Dean for the university many times, was also elected member of Management Council, Academic Council and Senate, also chaired many planning and executing committees of the University.
- Senior faculty members have been Senate Member, BOS Chairman, BOS Members many times.
- Institution has conducted many times Central Assessment Programme of the University successfully.
- We have strong alumni network with alumni placed in Organizations of repute globally.
- Our focus is on 'Total Personality Development' so lot of co-curricular, sports and cultural activities are organised.
- We observe total transparency in all academic, financial, administrative and auxiliary functioning of the Institution.
- We provide encouraging environment especially for girls.
- Our working day starts with National Anthem together, creating a culture of unity and harmony.

### Institutional Weakness

- We are self- financed Institution hence has to manage in limited resources at our disposal because of which there are various limitations on development such as very costly equipment cannot be purchased/maintained in the laboratory in comparison with Government funded organizations. Infrastructural development is comparatively slow.

We have lesser number of Ph.D. faculties. Mostly the qualification development of the faculty is during their working tenure in the Institution.

- We get the students allotted by the Government. Maximum students with higher marks prefer Government colleges and colleges in metro cities; hence we get the students with comparatively lower calibre.
- Being located at Nanded and having nearest Industrial centres (Aurangabad and Hyderabad) located

more than 250 kms on either ways and no Industry in the vicinity keep us weak on count of Industry interaction. Due to which Industrial training, Industry sponsored projects and faculty getting consultancy assignments is low.

- We get our intake mostly from rural background, so students are very weak in English language skills.
- Placements are weak because of students of lower calibre with weak communication skills and our locational disadvantage.

### **Institutional Opportunity**

- To maximise percentage of Academic results.
- To take special efforts for improving Soft Skills and English language of the students.
- Changing Industrial scenario and upcoming developments like IOT, Sensor Technology, Artificial Intelligence, Machine learning and Additive Manufacturing give scope to plan for specialized training and improving the employability of students.
- We could enhance the internship this year and still more opportunities could be explored for more number of internship for necessary industrial exposure.
- There are opportunities to increase the research and development activities with funding from DST, AICTE, UGC etc. in the Institute implementing more number of collaborations with research organizations and industries.
- To publish Institution's own Technical-journals based on R and D work carried out in the Departments. To publish the books based on Ph.D. theses of the faculty.
- Adjunct faculty provision by AICTE is an additional opportunity to promote the interaction with Industry and Alumni. This will make the learning process more effective.
- We are planning to extend the existing Innovation Centre into a regular Incubation centre in order to promote entrepreneurship and intrapreneurship (To train people with attitude of doing the work creatively.)
- To optimize the power utilization by increasing number of LEDs and utilization of solar power.
- To strengthen the community engagement activities with increased number of 'Skill Development' programs with the help of existing laboratory facilities.
- Continuous improvement on every count and hence being in search of opportunities is the soul of our working.

### **Institutional Challenge**

- To generate the resources for development with the help of funding agencies and Industry sponsored projects.
- To develop the faculty with more number of Ph.D. holders maintaining AICTE cadre ratio.
- To increase the employability of the students taking care of improving their communication skills, providing opportunities for skill development.
- To include the cutting edge technologies in the regular curriculum to keep it in pace with latest industrial developments.
- To design appropriate evaluation system taking care of assessment of other capabilities along with the technological skills.
- Mostly students are from agricultural background so cannot afford paying the fees in single go and Government scholarships are not received in time which affects the financial health of the Institute.

## 1.3 CRITERIA WISE SUMMARY

### Curricular Aspects

We ensure effective curriculum delivery through implementation of Academic calendar, Teaching plans, Course files, Lab manuals, etc. Semester session commences before the university results to take care of number of working days.

Faculty members use ICT tools, models, simulations, charts and other innovative pedagogical techniques in regular curriculum delivery. Mission 10X workshop for faculty organized by Wipro Technologies helped us.

Certificate programs are conducted in our Institute on a regular basis to equip the students with the skills required by the industry. During the last 5 years 47.41% students were enrolled in subject related Certificate / Diploma / add-on programs for enhancement of student knowledge.

Nearly 11.22% faculty members participated in various bodies of the university such as Dean, Senate, Academic Council, Board of Studies and other committees.

University has introduced 68 new courses (including electives) during last five years across all programs conducted in our Institute. Programs with elective course based system are implemented in our curriculum and multiple electives are offered to the students.

To create awareness, our curriculum includes courses on Human Values, Professional Ethics, Environment and Sustainability.

24 value added courses imparting transferable and life skills were offered during last five years. 17.6 % students undertake field projects and internships.

Structured feedback on curriculum is obtained from Students, Teachers, Alumni and Parents, and

is implemented through relevant University committees incorporating the changes required.

Further feedback about curriculum delivery is collected from the students; analyzed and appropriate actions are taken.

### Teaching-learning and Evaluation

We take student centric teaching learning process as prime element of Institutional functioning. Robust and sustainable evaluation system assessing various student competencies is applied with continuous improvement.

Admission are carried out in accordance with the rules and regulations of DTE and State Government. Institutional level admissions are also carried out from the merit list of Government following due procedure.

Dedicated, qualified and experienced teachers are committed to the development of students. Institute takes all

necessary steps to educate students of different learning levels, through effective teaching-learning techniques. Innovative teaching practices allow students to learn at their own pace. Conducive environment, use of ICT engages students in higher order 'thinking' making them creative.

Short training programs, workshops, internships are organized supplementing the curriculum, reinforce the learning of the students.

Seminars, project work, making the prototype leaving the scope for innovation and creativity leads to the all round development of students.

The emphasis of Teaching-Learning is on fostering global competencies and inculcating value system among students. Teachers are encouraged to attend conferences, workshops, paper presentations to improve their competencies. Teachers further mentor students to make the education learner-centered. Latest assessment techniques based on technology, wherever possible, are used to evaluate attainment levels of student learning outcomes. This evaluation process is reformed and is being evolved continuously.

Our pass out students, working in various organizations all over the globe have proved their competencies. Student's performance in University examination results has endorsed teaching- learning and evaluation systems of this Institute.

### **Research, Innovations and Extension**

The Institution has Research Center in Computer and Mechanical Engineering with an objective to provide a center for excellence in research. Total twelve students have completed their Ph.D. under these research centers till date and sixteen students are pursuing.

We have received research grant of 25 lakhs in 2014 from BARC for project on Medical Image Processing.

Recognizing the importance of Intellectual Property Rights (IPR), IPR cell was formed in 2012. Two patents have been filed so far. The Research Center arranges various expert lectures, seminars and workshops. During last five years, in totality 39 expert lectures, seminars and workshops on recent technologies and IPR have been organized.

The Institute encourages the faculty to attend National and International workshops, seminars and conferences. During last five years 31 research papers in UGC approved National and International journals and 59 in conference proceedings with 2 Book Chapters got published. One journal paper received the Gold Medal from the IE and three got 'Best Paper' award in IEEE International Conference. Our faculties are Reviewers of ASME, IE, Elsevier, WPC Journals. Also reviewers and on advisory panels for IEEE and other International Conferences.

To promote Industry-Academia interaction the Institution has signed MOUs with reputed industries and organizations like Indo-German Tool-room, IIT Bombay, HAL, TCS, Persistent Pvt. Ltd. etc.

To address various social issues and sensitize the students towards the same, Institution organizes various activities through CAST and student club TechLIFE. NSS unit also takes care of social activities.

## **Infrastructure and Learning Resources**

The Institution has a well maintained campus of 17.5 Acres with a built-up area of

more than 1.5 lakh sft. satisfying the norms of the Statutory Regulatory Authority (AICTE) . Natural light, ventilation and good ambience are taken care of by our Architect.

The built up area includes ICT enabled 21 well furnished classrooms, 3 Seminar Halls, well equipped 40 laboratories, workshop with latest CNC machine tools and other amenities.

Library has more than 44000 books, journals, e-books, e-journals along with library management software like SOUL and ILMS. Also remote access for the e-sources has been provided. Recently library has expanded to 6000 sft facility including independent reading sections for faculty and students.

Land of 7.45 acres is allotted for outdoor sports like cricket, football, volley ball, basket ball, hand ball, hockey, athletics, tennis etc. Indoor sports like badminton, table-tennis, carom, chess are encouraged. Canteen facility is available in the campus. RO purified drinking water is supplied.

We have Campus Area Network (CAN) having 672 IBM/Lenovo Desktop and Laptop computer systems with IBM Blade Servers and adequate peripherals. The whole network is fire-wall protected. The whole campus including hostels is connected with fiber optic cables with 100 Mbps leased line Internet connectivity. The campus is Wi-Fi enabled and installed with full HD, IP based surveillance camera network. The whole system is regularly updated and maintained. College Administration ERP system supports the academic, financial and general administration with the activities like preparing budget, maintaining expenditure, students and staff records.

## **Student Support and Progression**

Various Government scholarships are made available to the students providing the required back-up. The Institute also offers financial assistance to the deserving students and staff wards.

Remedial coaching for difficult subjects and weaker results are part of our regular teaching-learning. Career counselling activities are undertaken like soft-skill development, language laboratory, expert lectures on personality development, aptitude training and tests. Personal counselling is done by faculty mentors.

Value added supporting courses are offered with regular curriculum. Students are encouraged for Competitive exams.

Grievance redressal committees like Anti Ragging, Student Grievances and 'Vishakha' are in place. To take care of faculty/staff grievances special ombudsman is appointed for unbiased enquiry and mediation.

Efforts are taken to increase the campus placements. Alumni registration page provided on website helps collecting the off-campus placement, competitive exam related and higher education data.

Focusing only on engineering education is not enough. Education should lead to total development of an individual. So sports and cultural activities are nurtured in our Institute. Students have got awards at Inter University, State and National level. Our Students have won 'General Championship' Trophy twice in the University Youth Festivals.

It is our earnest effort to make our functioning student centric. The feedback of students is important while evaluating teaching learning process. Adequate representation is given to the students by including them in various committees related to Student's Council functioning and important committee like IQAC.

We have a strong alumni network with distinguished alumni achievers all over the World.

### **Governance, Leadership and Management**

Governance of the Institution is carried out by the Chairman, Governing council, the Director, Vice Principal, HODs and faculty members through the formation of different functioning committees.

The Institution practices the decentralization and participative management by including maximum faculty members in the relevant committees promoting the team spirit and attaining delegation of authority at appropriate level. Considering various aspects of academic, financial and administrative functioning the committees are assigned.

The e-Governance is being promoted and implemented on enhanced scale since last five years to attain transparency in functioning and paperless administration.

The effective implementation of the activities is carried out coordinating different relevant committees associated with the specific function.

The Institute has certain welfare measures for Teaching and Nonteaching staff like provision of the fees concession, financial assistance in case of emergency hospitalization.

Teachers are liberally sponsored for conferences and workshops for updating their knowledge also faculty development programs are organized in the campus through ISTE activities and Remote centre in collaboration with IIT Bombay.

A well established performance appraisal system exists in the Institute on sustainable basis with robust form that includes feedback from the students and self appraisal from individuals.

The financial resources are utilized in optimized way implementing the external audit. The other resources like infrastructure, energy, water and human resource are also used optimally attaining effective functioning.

IQAC is formed to monitor the quality aspects related to different functions of the Institute.

We focus on continuous improvement in the system.

### **Institutional Values and Best Practices**



Image of the Institution is built on values observed and followed in the campus. Ours is a co-educational Institute. Education being the foundation of a strong, well cultured and intellectual

society, both boys and girls should be given equal opportunities of development which is ensured in our campus. Students are in uniform while in campus, all the disparities are taken care of because of uniform. Human Values and Professional Ethics are communicated to the students through various practices like daily National Anthem, Thought of the Day, Birthday Wishes etc.

Waste management on the campus is taken care of through systematic disposal of dry and wet waste. Sanitary napkin vending machines along with incinerator are installed.

E-waste like old computers in working condition are donated to nearby schools and those not in working condition are sold to scrap dealers for recycling.

Rain Water Harvesting is done in the campus.

Vehicle Pooling is followed by many students and staff.

Awareness is spread amongst the students for environmental conservation through minimizing use of paper, avoiding use of plastics.

Teachers Quality Improvement is observed on continuous and sustainable basis. Sponsoring teachers for higher education, National and International conferences, organizing STTPs and FDPs takes place on regular basis.

To promote transparency in the functioning and to lead towards paperless administration as part of environmental awareness, CASERP is being implemented on the rising scale by digitalizing the information.

## 2. PROFILE

### 2.1 BASIC INFORMATION

| Name and Address of the College |  |
|---------------------------------|--|
| Name                            | Mahatma Gandhi Mission's College of Engineering        |
| Address                         | NEAR AIRPORT HINGOLI ROAD NANDED                       |
| City                            | Nanded   |
| State                           | Maharashtra  |
| Pin                             | 431605   |
| Website                         | <a href="http://www.mgmcen.ac.in">www.mgmcen.ac.in</a> |

| Contacts for Communication |                        |                         |            |              |                            |
|----------------------------|------------------------|-------------------------|------------|--------------|----------------------------|
| Designation                | Name                   | Telephone with STD Code | Mobile     | Fax          | Email                      |
| Professor                  | KOTGIRE S.L.           | 02462-222592            | 9158677555 | 02462-224087 | kotgire_sl@mgmcen.ac.in    |
| Director                   | GEETA SHRIKANT LATHKAR | 02462-222999            | 9850455553 | 02462-224101 | director_naac@mgmcen.ac.in |

| Status of the Institution |         |
|---------------------------|---------|
| Institution Status        | Private |

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

| Recognized Minority institution            |    |
|--|----|
| If it is a recognized minority institution | No |

| Establishment Details                |            |
|--------------------------------------|------------|
| Date of establishment of the college | 17-08-1984 |

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

| State       | University name                                 | Document                      |
|-------------|---|-------------------------------|
| Maharashtra | Dr. Babasaheb Ambedkar Technological University | <a href="#">View Document</a> |
| Maharashtra | Swami Ramanand Teerth Marathwada University     | <a href="#">View Document</a> |

**Details of UGC recognition**

| Under Section | Date |
|---------------|------|
| 2f of UGC     |      |
| 12B of UGC    |      |

**Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)**

| Statutory Regulatory Authority | Recognition/Approval details Institution/Department programme | Day,Month and year(dd-mm-yyyy) | Validity in months | Remarks |
|--------------------------------|---|--------------------------------|--------------------|---------|
| No contents                    |   |                                |                    |         |

**Details of autonomy**

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

**Recognitions**

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

| <b>Location and Area of Campus</b> |                                  |                  |                             |                                 |
|------------------------------------|----------------------------------|------------------|-----------------------------|---------------------------------|
| <b>Campus Type</b>                 | <b>Address</b>                   | <b>Location*</b> | <b>Campus Area in Acres</b> | <b>Built up Area in sq.mts.</b> |
| Main campus area                   | NEAR AIRPORT HINGOLI ROAD NANDED | Urban            | 17.5                        | 13712                           |

## 2.2 ACADEMIC INFORMATION

| <b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b> |   |                           |                            |                              |                            |                                |
|---|---|---------------------------|----------------------------|------------------------------|----------------------------|--------------------------------|
| <b>Programme Level</b>  | <b>Name of Programme/Course</b>                                   | <b>Duration in Months</b> | <b>Entry Qualification</b> | <b>Medium of Instruction</b> | <b>Sanctioned Strength</b> | <b>No.of Students Admitted</b> |
| UG  | BTech,Department Of Civil Engineering                             | 48                        | H.Sc. JEE CET              | English                      | 63                         | 63                             |
| UG  | BE,Department Of Civil Engineering                                | 12                        | A                          | English                      | 1                          | 1                              |
| UG  | BE,Department Of Mechanical Engineering                           | 12                        | A                          | English                      | 1                          | 1                              |
| UG  | BTech,Department Of Mechanical Engineering                        | 48                        | H.Sc JEE CET               | English                      | 63                         | 55                             |
| UG  | BE,Department Of Electronics And Telecommunication Engineering    | 12                        | A                          | English                      | 1                          | 1                              |
| UG  | BTech,Department Of Electronics And Telecommunication Engineering | 48                        | H.Sc.JEE CET               | English                      | 126                        | 70                             |
| UG  | BE,Department   | 12                        | A                          | English                      | 1                          | 1                              |

|    |  |    |                 |         |     |     |
|----|--|----|-----------------|---------|-----|-----|
|    | ent Of<br>Computer<br>Science And<br>Engineering                                   |    |                 |         |     |     |
| UG | BTech,Depart<br>ment Of<br>Computer<br>Science And<br>Engineering                  | 48 | H.Sc.JEE<br>CET | English | 127 | 123 |
| UG | BE,Departm<br>ent Of<br>Information<br>Technology                                  | 12 | A               | English | 1   | 1   |
| UG | BTech,Depart<br>ment Of<br>Information<br>Technology                               | 48 | H.Sc.JEE<br>CET | English | 63  | 53  |
| PG | Mtech,Depart<br>ment Of<br>Civil<br>Engineeering                                   | 24 | BE BTech        | English | 18  | 14  |
| PG | Mtech,Depart<br>ment Of<br>Mechanical<br>Engineering                               | 24 | BE BTech        | English | 18  | 5   |
| PG | Mtech,Depart<br>ment Of<br>Mechanical<br>Engineering                               | 24 | BE BTech        | English | 18  | 0   |
| PG | Mtech,Depart<br>ment Of<br>Electronics<br>And Teleco<br>mmunication<br>Engineering | 24 | BE BTech        | English | 18  | 0   |
| PG | Mtech,Depart<br>ment Of<br>Computer<br>Science And<br>Engineering                  | 24 | BE BTech        | English | 18  | 0   |
| PG | Mtech,Depart<br>ment Of  | 24 | BE BTech        | English | 18  | 0   |

|                 |  |    |          |         |   |   |
|-----------------|--|----|----------|---------|---|---|
|                 | Computer Science And Engineering                             |    |          |         |   |   |
| Doctoral (Ph.D) | PhD or DPhil, Department Of Mechanical Engineering           | 36 | ME MTech | English | 8 | 8 |
| Doctoral (Ph.D) | PhD or DPhil, Department Of Computer Science And Engineering | 36 | ME MTech | English | 8 | 7 |

### Position Details of Faculty & Staff in the College

| Teaching Faculty  |           |        |        |       |                     |        |        |       |                     |        |        |       |
|---|-----------|--------|--------|-------|---------------------|--------|--------|-------|---------------------|--------|--------|-------|
|   | Professor |        |        |       | Associate Professor |        |        |       | Assistant Professor |        |        |       |
|   | Male      | Female | Others | Total | Male                | Female | Others | Total | Male                | Female | Others | Total |
| Sanctioned by the UGC /University State Government              | 0         |        |        |       | 0                   |        |        |       | 0                   |        |        |       |
| Recruited   | 0         | 0      | 0      | 0     | 0                   | 0      | 0      | 0     | 0                   | 0      | 0      | 0     |
| Yet to Recruit  | 0         |        |        |       | 0                   |        |        |       | 0                   |        |        |       |
| Sanctioned by the Management/Society or Other Authorized Bodies | 13        |        |        |       | 29                  |        |        |       | 78                  |        |        |       |
| Recruited   | 4         | 5      | 0      | 9     | 7                   | 2      | 0      | 9     | 56                  | 20     | 0      | 76    |
| Yet to Recruit  | 4         |        |        |       | 20                  |        |        |       | 2                   |        |        |       |

| <b>Non-Teaching Staff</b>                                       |             |               |               |              |
|---|-------------|---------------|---------------|--------------|
|   | <b>Male</b> | <b>Female</b> | <b>Others</b> | <b>Total</b> |
| Sanctioned by the UGC /University State Government              |             |               |               | 0            |
| Recruited   | 0           | 0             | 0             | 0            |
| Yet to Recruit  |             |               |               | 0            |
| Sanctioned by the Management/Society or Other Authorized Bodies |             |               |               | 56           |
| Recruited   | 53          | 3             | 0             | 56           |
| Yet to Recruit  |             |               |               | 0            |

| <b>Technical Staff</b>  |             |               |               |              |
|---|-------------|---------------|---------------|--------------|
|   | <b>Male</b> | <b>Female</b> | <b>Others</b> | <b>Total</b> |
| Sanctioned by the UGC /University State Government              |             |               |               | 0            |
| Recruited   | 0           | 0             | 0             | 0            |
| Yet to Recruit  |             |               |               | 0            |
| Sanctioned by the Management/Society or Other Authorized Bodies |             |               |               | 31           |
| Recruited   | 28          | 3             | 0             | 31           |
| Yet to Recruit  |             |               |               | 0            |

### Qualification Details of the Teaching Staff

| <b>Permanent Teachers</b>    |                  |        |        |                            |        |        |                            |        |        |              |
|------------------------------|------------------|--------|--------|----------------------------|--------|--------|----------------------------|--------|--------|--------------|
| <b>Highest Qualification</b> | <b>Professor</b> |        |        | <b>Associate Professor</b> |        |        | <b>Assistant Professor</b> |        |        | <b>Total</b> |
|                              | Male             | Female | Others | Male                       | Female | Others | Male                       | Female | Others |              |
| D.sc/D.Litt.                 | 0                | 0      | 0      | 0                          | 0      | 0      | 0                          | 0      | 0      | 0            |
| Ph.D.                        | 4                | 4      | 0      | 4                          | 1      | 0      | 2                          | 2      | 0      | 17           |
| M.Phil.                      | 0                | 0      | 0      | 0                          | 0      | 0      | 1                          | 0      | 0      | 1            |
| PG                           | 0                | 1      | 0      | 3                          | 1      | 0      | 53                         | 18     | 0      | 76           |

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

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



| <b>Details of Visting/Guest Faculties</b>                         |             |               |               |              |
|---|-------------|---------------|---------------|--------------|
| <b>Number of Visiting/Guest Faculty engaged with the college?</b> | <b>Male</b> | <b>Female</b> | <b>Others</b> | <b>Total</b> |
|   |             | 8             | 0             | 0            |

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

| <b>Programme</b> |        | <b>From the State Where College is Located</b> | <b>From Other States of India</b> | <b>NRI Students</b> | <b>Foreign Students</b> | <b>Total</b> |
|------------------|--------|--|-----------------------------------|---------------------|-------------------------|--------------|
| Doctoral (Ph.D)  | Male   | 10   | 0                                 | 0                   | 0                       | 10           |
|                  | Female | 5  | 0                                 | 0                   | 0                       | 5            |
|                  | Others | 0  | 0                                 | 0                   | 0                       | 0            |
| UG               | Male   | 230  | 1                                 | 0                   | 0                       | 231          |
|                  | Female | 134  | 0                                 | 0                   | 0                       | 134          |
|                  | Others | 0  | 0                                 | 0                   | 0                       | 0            |
| PG               | Male   | 15   | 0                                 | 0                   | 0                       | 15           |
|                  | Female | 4  | 0                                 | 0                   | 0                       | 4            |
|                  | Others | 0  | 0                                 | 0                   | 0                       | 0            |

| <b>Provide the Following Details of Students admitted to the College During the last four Academic Years</b> |        |               |               |               |               |
|--|--------|---------------|---------------|---------------|---------------|
| <b>Programme</b>   |        | <b>Year 1</b> | <b>Year 2</b> | <b>Year 3</b> | <b>Year 4</b> |
| SC   | Male   | 35            | 29            | 29            | 38            |
|  | Female | 17            | 31            | 26            | 30            |
|  | Others | 0             | 0             | 0             | 0             |
| ST   | Male   | 3             | 5             | 5             | 7             |
|  | Female | 0             | 3             | 1             | 5             |
|  | Others | 0             | 0             | 0             | 0             |
| OBC  | Male   | 50            | 42            | 47            | 53            |
|  | Female | 19            | 32            | 42            | 33            |
|  | Others | 0             | 0             | 0             | 0             |
| General  | Male   | 144           | 100           | 127           | 149           |
|  | Female | 91            | 85            | 104           | 118           |
|  | Others | 0             | 0             | 0             | 0             |
| Others   | Male   | 24            | 36            | 41            | 43            |
|  | Female | 16            | 25            | 30            | 31            |
|  | Others | 0             | 0             | 0             | 0             |
| <b>Total</b>   |        | <b>399</b>    | <b>388</b>    | <b>452</b>    | <b>507</b>    |

### 3. Extended Profile

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#### 3.1 Programme

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

Response : 319

Number of self-financed Programmes offered by college

Response : 11

Number of new programmes introduced in the college during the last five years

Response : 0

#### 3.2 Student

Number of students year wise during the last five years

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 1748    | 2048    | 2369    | 2136    | 1922    |

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 219     | 219     | 219     | 219     | 219     |

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 370     | 405     | 464     | 365     | 355     |

Total number of outgoing / final year students

Response : 378

#### 3.3 Academic

**Number of teachers year wise during the last five years**

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 99      | 104     | 107     | 97      | 96      |

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 99      | 104     | 107     | 97      | 96      |

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 121     | 121     | 121     | 121     | 121     |

**Total experience of full-time teachers****Response : 1081.0833****Number of teachers recognized as guides during the last five years****Response : 4****Number of full time teachers worked in the institution during the last 5 years****Response : 77****3.4 Institution****Total number of classrooms and seminar halls****Response : 24****Total Expenditure excluding salary year wise during the last five years ( INR in Lakhs)**

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 462.11  | 520.01  | 556.22  | 456.12  | 347.64  |

**Number of computers**

**Response : 672**

**Unit cost of education including the salary component(INR in Lakhs)**

**Response : 0.8381**

**Unit cost of education excluding the salary component(INR in Lakhs)**

**Response : 0.2643**

NAAC

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

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

##### Response:

The Institute is affiliated to Dr.Babasaheb Ambedkar Technological University , Lonere for academic year 2017-18 for first year and Swami Ramanand Teerth Marathwada University Nanded for second, third and final year. The Curriculum is framed by University. The Institute adopts a systematic approach for effective curriculum implementation as given below:

- The University publishes yearly academic calendar at the beginning of every academic year. Based on this academic calendar Director, Heads and Administrative Officer discuss and prepare an academic schedule of the Institute. It is then distributed to the departments. The Time Table coordinator of each department prepares Time-Table for each Class in Enterprise Resource Planning (ERP) software system.
- Irrespective of university calendar, we start our teaching schedule even before university results to make it to appropriate number of working days during the semester. Some public holidays are cancelled like Good Friday , Pateti , Mahashivratri etc.
- HOD allocates subjects to the faculty as per area of specialization. This activity is carried out immediately after the end of previous semester so that faculty members get enough time for preparation of the allotted subjects.
- Every faculty member prepares a teaching plan of his/her subject in ERP software system in accordance with the Institute Academic Calendar and University Syllabus. The complete documentation is prepared and maintained in ERP software. We follow the process of preparing teaching plans since 2005, earlier it was done manually and now we do it in ERP system.
- The lecture conduction is daily monitored by the Administrative Officer. The faculty members update their lecture conduction and student attendance in ERP after every lecture. Director, Academic Cell Coordinator and HOD monitor the progress of curriculum implementation at the end of every month. Earlier it was monitored manually, now it is done through ERP system.
- To ensure effective curriculum implementation, faculty members maintain course file having – Course Objectives, Course Outcomes, Individual Time-Table, Teaching Plan, Assignments, Test Marks, University Question Papers, Student Attendance, and Teaching Notes.
- Lab Manuals are prepared by faculty for the respective subjects.
- Classroom teaching is supplemented by seminars, mini-projects, expert lectures, industry and field visits, in-house and industry sponsored projects.
- Faculty members adopt innovative teaching practices like ICT based teaching methods, using models and simulations, blogs, video lectures, etc.
- Internet facility is available through wired and Wi-Fi networks for the access of e-books, e-journals, e-learning resources and NPTEL video lectures.
- The college has well-equipped library and laboratories to help faculty members for effective delivery of the curriculum. LCD projectors are made available in the classrooms for effective teaching.

- Continuous assessment of term work is done. Parents are involved in the education process of their wards keeping them informed regarding their attendance and test marks.
- Student's feedback is taken to assess the teaching-learning process. Corrective measures are taken.
- In addition to the university specified teaching hours, extra lectures and tutorials are conducted for the students for selected difficult subject.

We keep on continuously improving our teaching learning system.

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

**Response:** 41

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 08      | 07      | 09      | 13      | 04      |

| File Description                            | Document                      |
|---|-------------------------------|
| Details of the certificate/Diploma programs | <a href="#">View Document</a> |

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

**Response:** 11.6

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 7       | 11      | 11      | 11      | 18      |

| File Description                                       | Document                      |
|--|-------------------------------|
| Any additional information                             | <a href="#">View Document</a> |
| Details of participation of teachers in various bodies | <a href="#">View Document</a> |

## 1.2 Academic Flexibility

### 1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years

**Response:** 21.32

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

Response: 68

#### File Description

#### Document

Details of the new courses introduced

[View Document](#)

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

**Response:** 61.11

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

Response: 11

#### File Description

#### Document

Name of the programs in which CBCS is implemented

[View Document](#)

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

**Response:** 44.51

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 611     | 1107    | 1005    | 1107    | 755     |

#### File Description

#### Document

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

[View Document](#)



## 1.3 Curriculum Enrichment

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

#### Response:

To address Gender, Environment and Sustainability, Human Values and Professional Ethics, and understanding their social importance, following courses have been introduced in the curriculum.

#### 1. Human values and Professional Ethics

- Behavioral Science for BE(CSE)
- Professional Aptitude and Logical reasoning for TE (CSE , IT & ECT)
- Professional Communication Skills for SE(CSE, IT)
- Professional Communication Skills for SE(Civil)
- Professional Communication Practices for SE(ECT)
- Professional Communication for SE(ECT)
- Professional Ethics for TE(ECT)
- Communication Skills for SE(Mech)

#### 1. Environment and Sustainability

- Energy and Environment Engineering for FE (All Branches)
- Green-IT principles and practices for BE (IT).
- Environmental Engineering-1 for TE(Civil)
- Environmental Engineering-2 for BE(Civil)
- Renewable Energy for BE(Mech)

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

Response: 24

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

Response: 24

| File Description  | Document                      |
|---|-------------------------------|
| Details of the value-added courses imparting transferable and life skills | <a href="#">View Document</a> |

### 1.3.3 Percentage of students undertaking field projects / internships

|  |                               |
|--|-------------------------------|
| <b>Response:</b> 17.6  |                               |
| 1.3.3.1 Number of students undertaking field projects or internships |                               |
| Response: 344  |                               |
| <b>File Description</b>  | <b>Document</b>               |
| Institutional data in prescribed format                              | <a href="#">View Document</a> |

## 1.4 Feedback System

|   |                               |
|---|-------------------------------|
| <p><b>1.4.1 Structured feedback on curriculum obtained from 1) Students 2) Teachers 3) Employers 4) Alumni 5) Parents For design and review of syllabus semester wise/ year wise</b></p> <p><b>A.Any 4 of the above</b></p> <p><b>B.Any 3 of the above</b></p> <p><b>C. Any 2 of the above</b></p> <p><b>D. Any 1 of the above</b></p> <p><b>Response:</b> A.Any 4 of the above</p> |                               |
| <b>File Description</b>   | <b>Document</b>               |
| Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management   | <a href="#">View Document</a> |
| Any additional information  | <a href="#">View Document</a> |

|   |                               |
|---|-------------------------------|
| <p><b>1.4.2 Feedback processes of the institution may be classified as follows:</b></p> <p><b>A. Feedback collected, analysed and action taken and feedback available on website</b></p> <p><b>B. Feedback collected, analysed and action has been taken</b></p> <p><b>C. Feedback collected and analysed</b></p> <p><b>D. Feedback collected</b></p> <p><b>Response:</b> B. Feedback collected, analysed and action has been taken</p> |                               |
| <b>File Description</b>   | <b>Document</b>               |
| Any additional information  | <a href="#">View Document</a> |

NAAC

## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

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

**Response:** 0.15

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 2       | 1       | 4       | 2       | 6       |

| File Description                              | Document                      |
|---|-------------------------------|
| Institutional data in prescribed format       | <a href="#">View Document</a> |
| List of students (other states and countries) | <a href="#">View Document</a> |

#### 2.1.2 Average Enrollment percentage (Average of last five years)

**Response:** 83.91

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 325     | 400     | 464     | 515     | 523     |

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 531     | 531     | 530     | 533     | 529     |

| File Description                        | Document                      |
|---|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |

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

**Response:** 86.3

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 138     | 182     | 207     | 213     | 205     |

| File Description                        | Document                      |
|---|-------------------------------|
| Any additional information              | <a href="#">View Document</a> |
| Institutional data in prescribed format | <a href="#">View Document</a> |

## 2.2 Catering to Student Diversity

**2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners**

**Response:**

Students getting admitted in the Institute come from different socio-economic strata having different learning capabilities. The Institute identifies learning levels based on the performance of student at the qualifying examination, entrance examination, student background such as rural, urban, medium of instructions during schooling and economic background of their family. To cater students' diversity the Institute implements the following strategies:

The process starts with an orientation program organized on the opening day of first year engineering with the welcome of students and parents, dignitaries, faculty members and the Director. On the first day, brief summary of the Institute is given which includes information about achievements and importance of Engineering Education.

To bring slow learners in the main stream, the subject teachers and mentors identify slow learners within the first two weeks. The students who are found weak in subjects, the concerned faculty provides special attention towards these students during practicals and tutorials. At the end of semester, night reading room facility is provided where the teachers guide slow learners to improve their performance. For improving communication skills and logical skills the Institute provides special coaching to slow learners.

The Institute appoints faculties as mentors with an average ratio of 1:20 students. The mentors consistently remain in touch with those students and conduct performance review fortnightly and provide solutions to their problems. List of defaulter students is prepared on the basis of low performance as well as low attendance. Students with poor performance are called with parents and their meetings are held with the teachers, HODs and the Director. Such periodic meetings are held after every class test to convey academic performance to the parents, with intent to involve them in the learning process and overall development of their ward.

Two extra lectures per week have been added as a strategy to take care of few identified difficult subjects having low results to take care of better understanding by the slow learners and at the same time giving better practice to average and advance learners. The students who repetitively under perform in Mathematics are forced to attend 10 days “Special Mathematics Course” before final examinations. Besides these, for the Diploma students, Institute arranges extra lectures for every subject in the time table. At the end of every semester remedial classes are conducted for slow learners and failure students.

The Institute encourages the advanced learners to excel in their academics by giving awards to those who excel in university exams. The class toppers are awarded proficiency prizes, the university toppers are honored at the annual gathering. Besides, every department conducts extracurricular activities such as workshops, seminars, conferences, various competitions and Industrial visits. Also special efforts are taken for improving communication skills.

Various value addition courses are arranged with the help of industries and consultancy organizations like IIT Bombay Spoken Tutorial courses, IGTR, Oracle, Microsoft, Texas Instruments etc. The purpose of above efforts is to make the students have an edge in the competitive environment and come out of the Institution with higher potential.

### 2.2.2 Student - Full time teacher ratio

**Response:** 16.43

| File Description                        | Document                      |
|---|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |

### 2.2.3 Percentage of differently abled students (Divyangjan) on rolls

**Response:** 0

#### 2.2.3.1 Number of differently abled students on rolls

| File Description                        | Document                      |
|---|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |

## 2.3 Teaching- Learning Process

### 2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**Response:**

Efforts are taken to make the learning more student-centric by analyzing diverse requirements of students based on their learning ability and interest. Special efforts are taken to elevate the learning levels of rural agro based students. Specific learning outcomes are taken into consideration while designing appropriate teaching methods for all courses making it more participatory and interactive. The learning is made more

interesting and interactive by organizing activities like group discussions, model making, field survey, field visits, role play, debates, quiz, seminars, demonstrations, exhibitions, wall magazine, annual magazine, industrial visits and training programs, etc. Infrastructural facilities, power and ICT resources for all such additional activities are provided by the institution.

Most of our teachers have completed two levels of Mission 10X program designed by Wipro Technologies. Teachers identify the learning levels of students proposed by revised Bloom's Taxonomy. To make learning more interesting, teachers use Audio Visual aids. Analogy in real life is used to explain difficult concepts. Academically weak students and slow learners are given remedial coaching and their progress is monitored. In addition to faculty mentors, student mentors are also selected who take care of the group implementing quality circles concept. Rewards are given to outstanding students. Gardner's multiple intelligence theory is used to strengthen the areas that appear at the lower end of intelligence profile of students.

**Experiential Learning:** Institute organizes various workshops, training programs, personality development programmes and National level technical event "Visio-tech". This helps in exploring contents beyond the syllabus to cater the learning needs of the students. Creative learning in groups is enabled by involving students in preparing theme based posters, models and projects. Students are encouraged to participate in project competitions, Seminars, Model competition, National level Robotics competition, online exams etc..

State of the art equipments are available in laboratories – for exploring the theoretical knowledge through experimentations and project the student work in pairs or in groups of 2 or 3 students. Collaborative learning is encouraged. PCB machine in Electronics Lab, HAAS CNC machine in Mechanical Dept, Latest versions of Software, tools are available to enrich learning.

**Participative Learning:** Students undertake internships in industries like Hindustan Aeronautics Limited, Indo-German tool room etc. and participate in industry sponsored projects and field work. Various curricular activities like report writing, seminars, quizzes, debates, group discussions, mini projects encourage collaborative learning.

Final year project is yet another platform available to students for experiential learning. Institute supports department faculty to organize project competitions and student conferences so that students can demonstrate the outcome of their experiential and participative learning. Interdisciplinary projects are encouraged as a policy.

**Problem Solving:** Practical and theoretical assignments are given. Activities like rapid fire quiz, puzzles, games, circuit design and debugging contest are organized. The learning material needed for such activities is made available in departmental laboratories through Google Drive. Programming problems are circulated forming the groups through social media. Homework, self-study assignments encourage students to explore their own abilities and in the process, inculcate the habit of self learning.

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

**Response:** 73.95

#### 2.3.2.1 Number of teachers using ICT

Response: 88

| File Description                          | Document                      |
|---|-------------------------------|
| List of teachers (using ICT for teaching) | <a href="#">View Document</a> |

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

**Response:** 20.8

#### 2.3.3.1 Number of mentors

Response: 94

| File Description  | Document                      |
|---|-------------------------------|
| Year wise list of number of students, full time teachers and students to mentor ratio | <a href="#">View Document</a> |

### 2.3.4 Innovation and creativity in teaching-learning

**Response:**

Faculty members are encouraged to adopt innovative teaching methods to ensure effective learning outcomes. The Institute realizes the importance of delivering quality education by redefining the classroom experience and applying innovative ideas to make teaching more effective. Faculty members make use of audio-visual aids, live simulations, models, PPTs to make learning interesting and to explain concepts that are difficult to visualize, otherwise. Faculty members are encouraged to attend training programs such as **'Mission 10X' and other FDP's** which help them to adopt new and innovative teaching methods. Some of the faculty members have used 'Clicker Test' (developed by IIT-Bombay) as an open source platform to conduct multiple choice examinations on android devices. Few innovative approaches in teaching learning include **use of ICT, 'Learning by Doing'**, flipped classroom, blended learning etc.

Many faculty members are implementing the concept of 'Flipped Classroom', where students are



encouraged for blended learning. This reverses the traditional learning environment by making the instructional content available online, outside the class room. Students watch online lectures and are engaged in the classroom with the guidance of a faculty.

Mind mapping technique is used for fast recall of a concept. To enrich classroom learning, students are given real world experience by way of in-plant training, live industry project work. Smart apps are also used to make subject more interesting. Brainstorming sessions, Role plays, Games, Puzzles, Quizzes are conducted to get the creative ideas evolved and develop their interpersonal skills. Field Trips and Industrial Visits are arranged for practical exposure and experiential learning.

Departmental club (ETA, MESA, CESA, CUC, ITSA, Linguist etc) activities are wonderful platform for students to exhibit and share their creative ideas. Students organize technical events, expert lectures and competitions which raises the curiosity level and interest for technology developing their organizing skills.

In the Innovation Laboratory students get an opportunity to browse through existing and futuristic applications of various technologies. State of the art machines, software tools and hardware facilities are available in the departments.

Institute has provided following avenues to nurture Innovation and Creativity amongst students:

- Students Clubs like Electronics Technocrats Association, Computer Users Club, Mechanical Engineering Students Association, Civil Engineering Students Association, Information Technology Students Association.
- Innovation Lab
- Center for Astronomy and Space Technology
- National Level Technical Event 'Visio-Tech'

Advance learners are motivated by guidance provided during expert lectures involving content beyond syllabus. This leads in upgrading their knowledge and tempts them to aspire for indepth knowledge. This also helps in creation and sustenance of the interest of students and encourages them to study with more energy.

Students are encouraged to participate in prestigious competitions. They have got recognition at National and International levels. Faculty assigns the topics beyond curriculum to the advanced learners of the class for presenting a seminar in the class. These innovative methods help students to grasp the subject and its intricacies, making learning a delightful experience.

## 2.4 Teacher Profile and Quality

### 2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

**Response:** 83.14

| File Description  | Document                      |
|---|-------------------------------|
| Year wise full time teachers and sanctioned posts for 5 years | <a href="#">View Document</a> |

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

**Response:** 15.7

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

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

| File Description   | Document                      |
|--|-------------------------------|
| List of number of full time teachers with PhD and number of full time teachers for 5 years | <a href="#">View Document</a> |
| Any additional information   | <a href="#">View Document</a> |

#### 2.4.3 Teaching experience of full time teachers in number of years

**Response:** 9.08

| File Description  | Document                      |
|---|-------------------------------|
| List of Teachers including their PAN, designation,dept and experience details | <a href="#">View Document</a> |

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

**Response:** 0

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

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

| File Description                        | Document                      |
|---|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |

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

**Response:** 7.11

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 9       | 9       | 8       | 8       | 9       |

| File Description  | Document                      |
|---|-------------------------------|
| List of full time teachers from other state and state from which qualifying degree was obtained | <a href="#">View Document</a> |

## 2.5 Evaluation Process and Reforms

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

**Response:**

CIE is the major factor that keeps students busy with their academic activities and is a deciding factor to improve quality of education. CIE allows teachers to evaluate the performance of students in accordance with their set objectives. Evaluation of student performance is carried out in such a way that makes students improve qualities such as drive and capacity for hard work, leadership and team-work, motivation, quality of imagination, intuition and speculation, skilled use of hands, etc.

To make teaching learning process effective and student centric we at the institute level not only follow university guide lines but also carry out many reforms so as to increase the learning level of students and improve quality of education.

For smooth, transparent and unbiased continuous evaluation of students, the institute forms examination cell at the institute level comprising of Internal Examination co-coordinator supported by exam coordinator from every department that plans exam schedule and conducts internal examination and is responsible for smooth, transparent and unbiased.

University provides academic calendar for every academic year. We at the institute level plan academic calendar for every semester taking in to consideration various sports, cultural, curricular and co-curricular activities so that the teaching learning process is carried out smoothly. This helps students to plan their studies well in advance and therefore large number of students can take part in various activities.

While evaluating student performance over entire semester, due weightage is given for student's performance in all internal examinations, theory and practical attendance, quality of journals, timely submission of assignments and for his overall behavior and performance in the college teacher can assess student by giving teachers assessment marks.

For continuous evaluation we conduct three internal examinations in a semester, and before start of every internal examination based on syllabus completed, assignments are given so that students prepare the entire syllabus. The academic calendar is displayed before start of the semester, so that student can plan studies well in advance.

Laboratory work is carried out throughout the semester. Students perform practical and get the file checked in the very next week. This clears all the doubts about the practical and reduces burden of completing the journals at the end of semester and students can pay more attention on their studies.

For CIE University has proposed two internal tests, whereas we conduct three internal tests throughout the semester. This helps slow learners to improve their performance. Even if the slow learners do not perform well in one or two examinations, they get a chance to do well in the remaining examination. This system encourages slow learners to compete with fast learners. Along with slow learners, students who are absent due to genuine reasons also get a chance to study and appear for this additional test that we conduct. Thus, students are evaluated on the basis of their internal examination performance, their assignments, regularity and sincerity. This helps to examine and evaluate the skill and knowledge acquired by the students during the course of their study.

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

#### **Response:**

Students getting registered for various programs in Indian higher education system have tremendous diversity in terms of language, medium of instruction that they opt for at school level, learning level of students etc. Therefore the mechanism of internal assessment should be transparent and robust. Also, good number of students does participate in various sports, cultural, curricular and co-curricular activities; there should be verity in the assessment and good enough frequency of assessment so that all students get equal opportunity of scoring marks in the CIE mechanism. CIE has become an integral part of the teaching learning process.

Student performance is evaluated internally on a continuous basis by the course instructor. In order to have verity in the assessment, the internal marks are divided under various heads, such as, theory attendance, practical attendance, internal test performance, practical performance, regularity of students, assignments, and his overall behavior and performance throughout the semester. The distribution of weightage to various forms of assessment including the semester-end examinations is decided and is announced at the beginning of semester.

For CIE, the University has prescribed two internal tests every semester, but due to some unavoidable circumstances, few students miss the tests, and few slow learners do not perform well. In order to take care of such students and to provide slow learners an additional opportunity, we arrange three internal tests, this helps most of the students to prepare entire syllabus and slow learners and absent students get one

additional chance for improving their performance. In addition many course instructors organize additional end term exam. We at the institute level carry out internal assessment throughout the semester with good frequency that provides students equal opportunity to perform well and improve their performance. This helps to examine and evaluate the skill and knowledge acquired by the students during the course of their study.

The Institute believes that satisfaction of stake holders in internal assessment is important and must be transparent and robust. Not only this informing students their mistakes and what the answer is expected must be made clear, so that students do not repeat same mistakes in final examination and learn the topic in a much better manner. We at the institute level, display model answer on the notice board and in order to maintain transparency in the assessment we show assessed answer book to the students immediately after test is over and take care of grievances, if any, and performance of students is modified.

The institute has acquired Management Information System (MIS) for Web based College Administration. Every stake holder is having access to this CAS. Students and parents can log in to this CAS for monitoring attendance, performance, and any other issues related with student performance from anywhere.

Thus, the mechanism that the institute follows for CIE is transparent, robust with verity and helps every student including slow learners, fast learners, and students participating in various sports, cultural, curricular and co-curricular activities get opportunity to perform well and to improve their performance throughout the semester.

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

#### **Response:**

Students getting registered for various programs in Indian higher education system have tremendous diversity in terms of language, medium of instruction that they opt for at school level, learning level of students etc. Therefore the mechanism of internal assessment should be transparent and robust. Also, good number of students does participate in various sports, cultural, curricular and co-curricular activities; there should be verity in the assessment and good enough frequency of assessment so that all students get equal opportunity of scoring marks in the CIE mechanism. CIE has become an integral part of the teaching learning process.

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Thus, the mechanism that the institute follows for CIE is transparent, robust with verity and helps every student including slow learners, fast learners, and students participating in various sports, cultural, curricular and co-curricular activities get opportunity to perform well and to improve their performance throughout the semester.

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

##### **Response:**

Continuous internal evaluation (CIE) of student performance is one of the major components of our education system. The entire effort put in by the teachers on teaching learning is centered on getting good outcome in terms of quality of education and attainment of program outcomes. Thus CIE have been overriding the process of education and are a matter of concern for stakeholders. CIE being an important component of semester system encourages students to work systematically throughout the course. There is increased self reliance on the part of the students in respect of schedule, evaluation and performance.

In a semester system available time span is required to be used in an efficient manner. Along with effective teaching learning, time bound CIE is important to elevate program attainment and increase learning level of the students. To make teaching learning process more effective and student centric we prepare our own academic calendar and carry out many reforms so as to adhere to the academic calendar.

The Institute has a program committee, comprising of Director, HODs and administrative officer. At the end of every semester program committee plans the Institutional academic calendar, following University guidelines for the upcoming semester taking in to consideration various sports, cultural, curricular and co-curricular activities so that the teaching learning process is carried out smoothly. This helps students planning other activities like preparing seminar topic, project, training programs etc.

For time bound CIE, the institute has examination cell at the institute level comprising of Examination coordinator supported by faculty coordinators. This cell plans exam schedule and conducts internal examination and is responsible for smooth, transparent and unbiased assessment. For CIE we conduct three internal examinations in a semester. Schedule for display of assignments, exam dates, declaration of results is displayed well in advance and conducted as per academic calendar. This helps student plan his/her studies and other activities well in advance.

For internal submissions, every department displays submission schedule and carries out submission work in a single day

Every teacher maintains course file that helps teacher plan his academic activities in a systematic manner. In order to adhere with the academic calendar for the conduct of CIE, we follow the steps given below: Declaration of semester begin date, Schedule for internal class test/minor examination and results.

For CIE University syllabus has proposed two internal tests, whereas we conduct three tests throughout the semester. This helps slow learners to improve their performance. Even if the slow learners do not perform well in one or two examinations, they get a chance to do well in the remaining examination. This system encourages slow learners to compete with fast learners. Along with slow learners, students who are absent due to genuine reasons also get a chance to prepare for this additional test that we conduct. Thus, students are evaluated on the basis of their internal examination performance, their assignments, regularity and sincerity. Thus the process of teaching learning and CIE go hand in hand achieve better and better program outcome.

## 2.6 Student Performance and Learning Outcomes

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

#### Response:

Assessment and Accreditation is broadly used for understanding the 'Quality Status' of an Institute. Our Institute has undergone for accreditation by National Board of Accreditation (NBA) and got accredited in 2006. The Institute ensures quality in curriculum with well-defined Program Outcomes (PO), Program Specific Outcomes (PSO) and Course Outcomes (CO).

Institute follows well documented processes for ensuring effective implementation of curriculum. The Institute has defined and stated course objectives and program outcomes. The Program Outcomes and Program Specific Outcomes are displayed in each department and on the Institute website [www.mgmcen.ac.in](http://www.mgmcen.ac.in).

The link for Course Outcomes, Program Outcomes and Program Specific Outcomes for all programs is [http://www.mgmcen.ac.in/\(department name\).aspx](http://www.mgmcen.ac.in/(department name).aspx)

An example of the Program Outcomes with Program Specific Outcomes and Course Outcomes is given below.

## **Program Outcomes of Computer Science and Engineering**

### **Undergraduate (UG) Program:**

To have software skills and hardware knowledge to be applied for real life situations/industrial applications.

- Ability to adapt to a rapidly changing environment by learning and employing new programming skills and technologies.
- To identify, formulate, and provide solutions to engineering problems.
- To apply diverse knowledge across the domains with inter-personnel skills to deliver the Industry need.
- To function effectively as an individual, as a member or leader in diverse & multidisciplinary teams.
- To groom communication and presentation skills for development of domain interface with society.
- To learn contemporary issues related to social & environmental context for sustainable development of engineering solutions.
- To promote leadership, motivation, ethics & morals.

### **Program Specific Outcomes (PSOs)**

#### **Undergraduate (UG) Program:**

- To do analysis and design of software systems using relevant mathematical model and software design tools.
- To understand Programming languages, Databases, Operating systems and networking concepts and protocols.
- To be able to apply programming and computing skills in the areas related to Compiler Design, Algorithms, Web application development, Mobile Computing and Communication.
- Able to demonstrate knowledge in the areas such as, Software Engineering, Data Communication and Networking, Data Mining, Information and Network Security.

## **DATA STRUCTURES AND COMPUTER ALGORITHMS**

### **COURSE OUTCOMES**

After undergoing the course students should be able to...

- Understand the concepts of data structure, data type and array data structure.
- Analyze algorithms and determine their time complexity.
- Implement linked list data structure to solve various problems.
- Understand and apply various data structures such as stacks, queues, trees and graphs to solve various computing problems using C-programming language.
- Implement and know when to apply standard algorithms for searching and sorting.
- Effectively choose the data structure that efficiently model the information in a problem.



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

#### **Response:**

Continuous assessment identifies, collects, and prepares data to evaluate the attainment of Program Outcomes(PO), Program Specific Outcomes(PSO). At the end of semester/ Academic year and after completion of program student should be able to apply knowledge acquired. He/she should be able to identify, formulate and define the problems and be able to provide the solutions. He/she should be able to contribute to the needs of the Society. Therefore evaluation of attainment of Course Outcome is carried out throughout the year.

For effective teaching, well-defined POs, PSOs and COs are well defined and circulated to students and faculties. Also it is uploaded on Institutional website.

#### **Attainment of Course Outcome**

To ensure attainment of POs, PSOs and COs, every department has a Program Outcome Assessment Committee (POAC) comprising of Head of the Department and two senior faculties from the department. POAC monitors course and program attainment at the department level.

COs are continuously assessed by the course coordinator by conducting

- Internal examinations throughout the semester,
- Interacting with students in Class, and
- Students' performance is assessed while conducting practicals.

The course coordinator is at liberty to take corrective measures while assessing the Course Outcomes on continuous basis. Analyzing assignments, Mid-semester tests, Preliminary examinations, course feedback are some other ways for this assessment. POAC also monitors Course attainment on regular basis and issues guidelines to course coordinators for improving course attainment. This has resulted in improvement in performance of students in University examinations.

#### **Attainment of PSOs and POs**

Basic purpose of imparting quality education will be served only when teaching learning process keeps on evolving itself, resulting in Creative, Innovative and Employable graduates. Therefore it is necessary to measure and analyze attainment level of program specific outcomes and program outcomes. The Institute ensures to facilitate every student to achieve all learning outcomes by providing them all necessary inputs required.

#### **Assessment of POs:**

Engineering graduates are expected to acquire technical/functional, generic and managerial competencies, and must be able to identify, analyze and give solutions to the problem. A learner must be able to work as an individual as well as in a team. Therefore, it is necessary to assess competencies that the student has acquired during his course of study. The institute has set a mechanism to assess the program outcome. Effective assessment uses direct and indirect, quantitative and qualitative measures as appropriate to the

objective or outcome being measured.

Direct assessment is assessment of actual student work by someone qualified to assess it; indirect assessment refers to assessment techniques like end course surveys, graduate exit surveys etc.

| Sr. No. | Assessment Tool              | Method of assessment | of Assessment frequency | Assessing authority | Review |
|---------|------------------------------|----------------------|-------------------------|---------------------|--------|
| 1       | End Course Survey            | Indirect             | Once in a semester      | Faculty and Head    |        |
| 2       | Exit Survey                  | Indirect             | Yearly                  | Head and Committee  |        |
| 3       | External Survey by Examiners | Direct               | Yearly                  | External Examiner   |        |
| 4       | Assignment                   | Direct               | Thrice in a semester    | Concerned Faculty   |        |
| 5       | University Examination       | Direct               | Twice in a semester     | University          | POAC   |

Based on all above parameters attainment level of POs/PSOs/COs is assessed.

### 2.6.3 Average pass percentage of Students

**Response:** 90.91

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

Response: 370

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

Response: 407

| File Description                        | Document                      |
|---|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |

## 2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

**Response:**

| File Description                            | Document                      |
|---|-------------------------------|
| Database of all currently enrolled students | <a href="#">View Document</a> |

NAAC

## Criterion 3 - Research, Innovations and Extension

### 3.1 Resource Mobilization for Research

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

**Response:** 130000

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 40000   | 0       | 90000   | 0       | 0       |

| File Description  | Document                      |
|---|-------------------------------|
| List of project and grant details   | <a href="#">View Document</a> |
| e-copies of the grant award letters for research projects sponsored by non-government | <a href="#">View Document</a> |

**3.1.2 Percentage of teachers recognised as research guides at present**

**Response:** 5.04

3.1.2.1 Number of teachers recognised as research guides

Response: 6

| File Description                        | Document                      |
|---|-------------------------------|
| Any additional information              | <a href="#">View Document</a> |
| Institutional data in prescribed format | <a href="#">View Document</a> |

**3.1.3 Average number of research projects per teacher funded by government and non government agencies during the last five years**

**Response:** 0.01

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

Response: 1

| File Description                              | Document                      |
|---|-------------------------------|
| Supporting document from Funding Agency       | <a href="#">View Document</a> |
| List of research projects and funding details | <a href="#">View Document</a> |

## 3.2 Innovation Ecosystem

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

#### Response:

#### Innovation Center

The institute has set up an innovation center in association with InnovatioNext.in, Noida in our campus. Innovation App provided by them is the most powerful learning and development solution to transform Institutes into research and innovation centers. Today, as the industry is demanding creative talent and fresh ideas from the students, the App helps Institutes to reduce the skills gap between the industry and the academia. The App brings in thousands of students into the world of creative applications of innovative ideas for products and processes and their applications in a flash on smart phones.

Innovation App is specially designed to make our industry and academia ready for Industry 4.0 revolution putting forward many challenges as well as trillion dollar business opportunities. There is a great challenge to align the existing business models with emerging new technologies and transform traditional products and services in accordance with emerging trends of Industry 4.0.

There are also great opportunities to be seen for innovations, as the next industrial revolution will be dominated by internet of things, artificial intelligence, augmented reality, machine learning, digitization, connected things, smart products, smart factory and smart cities. Innovation App helps the industry and academia in both - preparing for the challenges and as well as seizing new business opportunities with emerging technological landscape.

The advantages of Innovation App for Institutes are given below:

#### Faculty

Today the education process is having no scope for the teachers to be exposed to the industrial culture. The legitimate existence of the innovation center in the institute will be helpful on this count.

1. **Creativity & Imagination:** For developing Imagination, creativity and innovative mindsets, which are presently need of time for the existing education system.
2. **Innovation Capability & Skill Building:** For developing the concepts and orientation of the students for innovation skills and build their capabilities developing their interest in the same.
3. **Industry-Academia Projects and Reducing Gaps:** For working closely with industry on innovation projects and help reducing the present gap between academia and industry.
4. **Entrepreneurs / Start-ups:** For developing next generation entrepreneurs, breakthrough innovations and start-ups revamping the present products, processes, and materials applying new

technologies

### Students

Students can come up with new ideas and can enjoy most rewarding careers. We want not only the entrepreneurs but also the intrapreneurs who will keep on thinking creatively about the product and processes inside the organisation they are employed.

### Incubation Center

Our Institute has set up and developing an incubation Center for entrepreneurship and intrapreneurship in our premises. We have signed a MoU with Cygni digital Solutions Pvt., Ltd., Pune and the center functions in association with this company. It aims at offering students live industry projects in the vacation and opportunities of employment after the successful completion of projects. Promising candidates dedicatedly work on the projects under the guidance of mentors from companies and guides from college. The college provides laboratories and other facilities to the selected students. The company's intellectual property rights are protected.

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

Response: 40

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 09      | 11      | 13      | 3       | 4       |

| File Description                                   | Document                      |
|--|-------------------------------|
| List of workshops/seminars during the last 5 years | <a href="#">View Document</a> |
| Any additional information                         | <a href="#">View Document</a> |

## 3.3 Research Publications and Awards

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

Response: Yes

| File Description                        | Document                      |
|---|-------------------------------|
| Institutional data in prescribed format | <a href="#">View Document</a> |

**3.3.2 The institution provides incentives to teachers who receive state, national and international recognition/awards****Response:** Yes

| <b>File Description</b>            | <b>Document</b>               |
|------------------------------------|-------------------------------|
| e- copies of the letters of awards | <a href="#">View Document</a> |
| List of Awardees and Award details | <a href="#">View Document</a> |

**3.3.3 Number of Ph.D.s awarded per teacher during the last five years****Response:** 3**3.3.3.1 How many Ph.Ds awarded within last five years**

Response: 12

| <b>File Description</b>  | <b>Document</b>               |
|--|-------------------------------|
| List of PhD scholars and their details like name of the guide , title of thesis, year of award etc | <a href="#">View Document</a> |

**3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years****Response:** 0.06**3.3.4.1 Number of research papers in the Journals notified on UGC website during the last five years**

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 11      | 03      | 04      | 06      | 07      |

| <b>File Description</b>  | <b>Document</b>               |
|--|-------------------------------|
| List of research papers by title, author, department, name and year of publication | <a href="#">View Document</a> |

**3.3.5 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years****Response:** 0.12**3.3.5.1 Total number of books and chapters in edited volumes / books published, and papers in**

national/international conference-proceedings year wise during the last five years

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
| 7       | 6       | 5       | 16      | 23      |

| File Description  | Document                      |
|---|-------------------------------|
| List books and chapters in edited volumes / books published | <a href="#">View Document</a> |

### 3.4 Extension Activities

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

##### Response:

The institution has set up various extension activities with an objective to sensitize the students towards the social issues and make them work for the same. This includes establishment of an environmental club- Technocrat's Living in Friendship with Environment (TECH-LIFE), Center of Astronomy and Space Technology (CAST), and various regular social activities run by different departments.

TECH-Life is functioning since 1991. This club is engaged in activities related to the environmental issues of the region. The activities organized are -

- Tree plantation (on regular basis).
- Trekking expedition (minimum once or twice in a year).
- Conducting air and sound pollution checks during diwali.
- From year 2000, Nirmalya Sankkalan activity is conducted during Ganpati Visarjan.
- From last four years, organizes camp for students from schools on Eco-friendly Ganpati making.

A Center for Astronomy and Space Technology (CAST) is developed. Both academic activities along with hobbies of students are taken care of. Various orientation courses and workshops are organized at both school and university level, like-

- A National level orientation workshop on "Transit of Venus" under the sponsorship Vigyan Prasar, DST was organized during 11-13 May 2012 within the campus. (50 participants from Maharashtra, Madhya Pradesh and Gujarat have attended the workshop)
- An expedition was arranged to observe Transits of Venus on 6th June 2012 relayed from Pachmarhi, MP. (15 participants observed the event)
- An informative exhibition on insertion in Mars orbit was organized during 22-25 September 2014. (1500 Students visited from nearby schools)
- Participated in International Geminid Meteor shower on 15th Dec 2015 from Patnoor in association with the International Meteor Organization, Germany. (30 students participated).
- CAST center has designed and developed lightening forecast device under a project "Lightening



Radar” and “Electric Field Mill” prepared by final year students of ECT and Mechanical Engineering to help farmers.

- From more than 12 years, CAST center also provides a weather forecast for Marathwada region, which has been conveyed to the regional meteorological department and public through various newspapers.
- CAST center is equipped with Seismograph device, which helps in monitoring the seismic activity in the region, which is the only center in this region and run in collaboration with the local municipal corporation, SRTM University, Nanded and NGRI, Hyderabad.

Various departments in the campus are also engaged in activities to address the social issues in the region. Civil Engineering Department students conducted a traffic survey of the Nanded city and national highways NH 221/222 and submitted the detail reports to the traffic department. The traffic awareness program is conducted every year. Department also provides services for material testing and water testing free of cost to the citizens of Nanded.

In addition to this visits to drought affected areas to help families of the farmers, mother Teresa’s home, school of physically challenged children are regularly under taken by the students along with raising donation and shramdan.

Our whole purpose is not only to create the engineers but to make them good human beings too.

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

**Response: 2**

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

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

| File Description  | Document                      |
|---|-------------------------------|
| e-copy of the award letters                               | <a href="#">View Document</a> |
| Number of awards for extension activities in last 5 years | <a href="#">View Document</a> |

### 3.4.3 Number of extension and outreach programs conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc., during the last five years

**Response: 16**

3.4.3.1 Number of extension and outreach programs conducted in collaboration with industry,community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc.,year wise during the last five years

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 5       | 2       | 5       | 3       | 1       |

| File Description  | Document                      |
|---|-------------------------------|
| Number of extension and outreach programs conducted with industry,community etc for the last five years | <a href="#">View Document</a> |

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

**Response:** 33.63

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 762     | 590     | 680     | 710     | 650     |

| File Description  | Document                      |
|---|-------------------------------|
| Average percentage of students participating in extension activities with Govt. or NGO etc. | <a href="#">View Document</a> |

### 3.5 Collaboration

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

**Response:** 17

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
| 10      | 3       | 3       | 1       | 0       |

| File Description  | Document                      |
|---|-------------------------------|
| Number of Collaborative activities for research, faculty etc. | <a href="#">View Document</a> |
| Copies of collaboration                                       | <a href="#">View Document</a> |

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

**Response:** 13

3.5.2.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year wise during the last five years

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

| File Description   | Document                      |
|--|-------------------------------|
| e-copies of the MoUs with institution/ industry/ corporate house   | <a href="#">View Document</a> |
| Details of functional MoUs with institutions of national, international importance, other universities etc. during the last five years | <a href="#">View Document</a> |

## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

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

**Response:**

The management shows keen interest in the creation and enhancement of infrastructure in the Institution for smooth running of all the academic, co-curricular & extra curricular activities. The management promotes improvement in infrastructure and ensures maintenance of existing buildings. Necessary budget is allocated to upgrade and create needed infrastructure. Infrastructural facilities are provided such that it creates a better and congenial atmosphere for effective teaching and learning.

The college possess a well maintained campus situated on a sprawling 17.5 acres of serene green, nature friendly landscaped area with a built up space of 13712sqm.

The state-of-the-art infrastructure with wide corridors, good natural lighting & Ventilation augments and promotes a good teaching-learning environment. The adequate infrastructure facilities meet not only the norms of regulating bodies (AICTE) but also satisfy the functional needs. All the classrooms and most of the laboratories are equipped with multimedia teaching aids. Total 21 classrooms, 3 air conditioned Seminar halls with audio video conference facility, 40 Laboratories, common workshop, Central Library with Reading room, Open Auditorium (inner courtyard-2000 capacity), Common room for Girls, Canteen facility, Playgrounds, Boys Hostel ( 68 inmates), Girls Hostel (92 inmates) & Clinic/Dispensary are available in the campus.

Laboratory equipment is as per the syllabus, with sufficient number of required experimental setups well equipped & focused on providing hands-on experience. High-end equipment is also available for student's projects and research works. Every department has dedicated laboratories and classrooms. Each department is provided space for individual faculty as well as separate cabins for HODs, Associate Professors & Assistant Professors all with Computing & Internet facilities.

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

**Response:**

The students are encouraged constantly to involve in Extra-curricular activities like Indoor & Outdoor Sports, Cultural Activities, Tree Plantation, Campus cleaning, Social awareness, Communication skill development, Spiritual, Health & Hygiene Consciousness etc.

A Spacious 7.45 Acre open space is available as Playground for games like Cricket, Football, Volleyball, Kabaddi & Tennis etc. Facilities for Indoor sports like Table Tennis, Chess and Carom etc. are also provided inside the Campus. All Indoor & Outdoor sports facilities are freely accessible to all the students

|                            |                               |
|----------------------------|-------------------------------|
| of the Institute           |                               |
| <b>File Description</b>    | <b>Document</b>               |
| Any additional information | <a href="#">View Document</a> |

|   |                               |
|---|-------------------------------|
| <b>4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc</b> |                               |
| <b>Response:</b> 100  |                               |
| 4.1.3.1 Number of classrooms and seminar halls with ICT facilities  |                               |
| Response: 24  |                               |
| <b>File Description</b>   | <b>Document</b>               |
| Number of classrooms and seminar halls with ICT enabled facilities  | <a href="#">View Document</a> |

| <b>4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.</b>  |                               |         |         |         |         |         |     |     |     |     |     |
|---|-------------------------------|---------|---------|---------|---------|---------|-----|-----|-----|-----|-----|
| <b>Response:</b> 99.48  |                               |         |         |         |         |         |     |     |     |     |     |
| 4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year wise during the last five years (INR in Lakhs)   |                               |         |         |         |         |         |     |     |     |     |     |
| <table border="1"> <thead> <tr> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> <th>2012-13</th> </tr> </thead> <tbody> <tr> <td>460</td> <td>520</td> <td>550</td> <td>455</td> <td>345</td> </tr> </tbody> </table> |                               | 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 | 460 | 520 | 550 | 455 | 345 |
| 2016-17   | 2015-16                       | 2014-15 | 2013-14 | 2012-13 |         |         |     |     |     |     |     |
| 460   | 520                           | 550     | 455     | 345     |         |         |     |     |     |     |     |
| <b>File Description</b>   | <b>Document</b>               |         |         |         |         |         |     |     |     |     |     |
| Details of budget allocation, excluding salary during the last five years   | <a href="#">View Document</a> |         |         |         |         |         |     |     |     |     |     |
| Audited utilization statements  | <a href="#">View Document</a> |         |         |         |         |         |     |     |     |     |     |
| Any additional information  | <a href="#">View Document</a> |         |         |         |         |         |     |     |     |     |     |

## 4.2 Library as a Learning Resource

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

The whole Library is spread over two floors with an area of 495 Sq.m. Library having rich books and journal collection fulfills the academic resource needs of the students as well as faculty members providing a pleasant reading environment for students, research scholars and faculty members. Over 20 computers are available for users to access various online and other resources of the Library. Library orientation programs and other schemes have resulted into good library usage. Open access system for Periodicals, use of SOUL Library Database Management software, availability of good number of reference books and National & International (online) journals are the main resources of the Library. Library has made available more than 2000 bounded back volumes of National & International Technical Journals. NPTEL video lectures are also available for the Teachers & Students. UG projects, PG Dissertations & PhD. Thesis are also a part of the Library resources. Night Library facility is available for interested students during their exams along with refreshments for the students. Special collection of Competitive Exam Books like GATE, GRE, TOEFL, IAS, IES and Communication Skills are also provided for the students.

**4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment****Response:****Knowledge Resources**

| Sr. No. | Book Name   | Publisher              | Author          |
|---------|---|------------------------|-----------------|
| 1       | The new encyclopaedia britanica                   | Helen Hemingway Benton | -               |
| 2       | McGraw hill encyclopaedia of science & technology | McGraw Hill, New York  | -               |
| 3       | Encyclopaedia of physical sciences & tech.        | Academic press, London | Meyers Robert S |
| 4       | Encyclopaedia of Buddhism                         | APH, New Delhi         | Chitkara M.G.   |
| 5       | Encyclopaedia of hinduism                         | Sarup, New Delhi       | Sehgal Sunil    |
| 6       | Encyclopaedia history of sikh & sikhism           | Deep & Deep            | Bhatia & Bakshi |
| 7       | Encyclopaedia of fluid mechanics                  | Taxes Guly publishing  | Nicholas C.P.   |

|    |   |   |                                 |  |
|----|---|---|---------------------------------|--|
| 8  | Encyclopaedia of science & tech.  | Mc Graw hill, New York                          | -                               |  |
| 9  | Encyclopaedia of I.T.   | Dominant publisher                              | Das Swarup                      |  |
| 10 | Encyclopaedia of Noble Laureates Literature                             | Dominant  | Raymond Benette                 |  |
| 11 | Eye witness science   | Darling Kinnersley                              | Steve Parker                    |  |
| 12 | World of Science  | S.Chand, New Delhi                              | Bender Lionel ed                |  |
| 13 | Lands & Peoples   | Grolier Inc., USA                               |                                 |  |
| 14 | Great women of modern India   | Chanderlok Prakashan, Kanpur                    | Grover Arora                    |  |
| 15 | Political thinkers of modern India                                      | Deep & Deep, New Delhi                          | Grover Virender                 |  |
| 16 | The times Comprehensive Atlas of the world                              | Times books                                     | -                               |  |
| 17 | Wonders of the world  | Taj book International UK                       | Sandra Forty                    |  |
| 18 | Ocean   | Thames & Hudson                                 | Philip Plisson                  |  |
| 19 | Mapping history of world Religions                                      | Cartographic books                              | Ian Barnes                      |  |
| 20 | Encyclopaedia of Information technology computer science and cyber laws | Dominant publishers and distributors, New Delhi | Swarup K. Das, S. Bhattacharjee |  |
| 21 | Encyclopaedia of great scientists                                       | mangal deep pub,<br>Jaipur                      | Ravikumar s.k.                  |  |
| 22 | Encyclopaedia of Indian wildlife sanctuaries and parks                  | anmol pub.pvt.Ltd                               | Tiwari s.k.                     |  |
| 23 | Encyclopaedia of Nature   | macdonald Edu.Ltd.                              | Macdonald                       |  |
| 24 | Encyclopaedia of sports and Games (Vol.1to 4)                           | sports,delhi                                    | Thani lokesh                    |  |
| 25 | Encyclopaedia of Sports and Games                                       | vikas pub.house,new delhi                       | Goel R.G.,Goel gaurav           |  |
| 26 | Encyclopaedia of injuries and Indian sports persons                     | khel sahitya Kendra,delhi                       | shaw dhananjay, Gambhir shalini |  |
| 27 | Encyclopaedia of women  | Indian,New Delhi                                | mohan poornima                  |  |
| 28 | Encyclopaedia of world Architecture(Vol.I&II)                           | delhi   | srisatguru                      |  |
| 29 | Encyclopaedia of World Universities                                     | communication associates,Hydrabad               |                                 |  |
| 30 | Infinity's Encyclopaedia of Earth                                       | Infinity,New delhi                              | clark john                      |  |
| 31 | International Encyclopaedia of energy                                   | Cosmo,New Delhi,                                | miller Norman, Frank marshall   |  |

|   |                              |                               |               |
|---|------------------------------|-------------------------------|---------------|
| 32  | UBS Encyclopaedia of Careers | UBS,New Delhi                 | Ghose Jayanti |
| <b>Rarebooks &amp; Report are attached herewith in additional information</b> |                              |                               |               |
| <b>File Description</b>   |                              | <b>Document</b>               |               |
| Any additional information  |                              | <a href="#">View Document</a> |               |

**4.2.3 Does the institution have the following:**

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

**A. Any 4 of the above**

**B. Any 3 of the above**

**C. Any 2 of the above**

**D. Any 1 of the above**

**Response:** B. Any 3 of the above

|   |                               |
|---|-------------------------------|
| <b>File Description</b>   | <b>Document</b>               |
| Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc. | <a href="#">View Document</a> |
| Any additional information  | <a href="#">View Document</a> |

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

**Response:** 16.32

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



|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
| 14.60   | 19.30   | 24.70   | 9.10    | 13.90   |

| File Description  | Document                      |
|---|-------------------------------|
| Details of annual expenditure for purchase of books and journals during the last five years | <a href="#">View Document</a> |

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

**Response:** Yes

| File Description                                       | Document                      |
|--|-------------------------------|
| Details of remote access to e-resources of the library | <a href="#">View Document</a> |

#### 4.2.6 Percentage per day usage of library by teachers and students

**Response:** 5.3

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

Response: 110

| File Description                                  | Document                      |
|---|-------------------------------|
| Details of library usage by teachers and students | <a href="#">View Document</a> |
| Any additional information                        | <a href="#">View Document</a> |

### 4.3 IT Infrastructure

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

**Response:**

The Institute encourages the use of free available open educational resources like Ubuntu, LaTeX, PHP, JAVA, SQL& CC++ etc., which are shared for teaching, learning, and research activities. These resources are available under legally recognized open licenses—free for people to reuse, revise, remix, and redistribute. These help to increase and enhance knowledge domain of both the faculty and the students giving them valuable information and saving their time.

Latest Management Information System (MIS) software named CAS is utilized for all Online Accounting, Student Information, Staff Bio-metric attendance System, Budgeting, Financial transactions etc. for a paperless office system. All the Staff & students are provided login by using Cyberoam for Internet

accessing and security system. By using FTP server we provide software in the Campus.

Entire Campus is connected with LAN by using multi/single mode fiber optics cable with a speed of 1Gps. All the Class rooms are connected with CAT6 cable and all the Departments are Wi-Fi enabled. Whole Campus is under Surveillance through high resolution cameras with Audio. Girls & Boys hostels are connected through LAN for free internet access to the inmates.

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

#### 4.3.2 Student - Computer ratio

**Response:** 2.91

| File Description         | Document                      |
|--------------------------|-------------------------------|
| Student - Computer ratio | <a href="#">View Document</a> |

#### 4.3.3 Available bandwidth of internet connection in the Institution (Lease line) <5 MBPS

5-20 MBPS

20-35 MBPS

35-50 MBPS

**Response:** >=50 MBPS

| File Description   | Document                      |
|--|-------------------------------|
| Any additional information   | <a href="#">View Document</a> |
| Details of available bandwidth of internet connection in the Institution | <a href="#">View Document</a> |

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

| File Description  | Document                      |
|---|-------------------------------|
| Facilities for e-content development such as Media Centre, Recording facility,LCS | <a href="#">View Document</a> |

**4.4 Maintenance of Campus Infrastructure****4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years****Response:** 36.64

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 157.08  | 182.2   | 179.58  | 169.58  | 155.47  |

| File Description   | Document                      |
|--|-------------------------------|
| Details about assigned budget and expenditure on physical facilities and academic facilities | <a href="#">View Document</a> |

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

The Infrastructure facilities like Land, Buildings, Water Supply, Sanitation, Stores, Electrical, Mechanical Equipment, Fire extinguishers & Power Generator are maintained by the Construction & Maintenance Team (Estate office) through full-time staff members as well as by staff on hire/agreement. All Electrical equipment within the Campus are looked after by the staff of our Electrical Department. For General Cleanliness, Housekeeping, Dusting of equipments and cleaning all glass panes is taken up daily. Washrooms are maintained keeping focus on hygiene and maintained by full time staff on roll. Each department is held responsible to maintain their Classrooms & Laboratories by reporting to the Estate Office and the maintenance works are carried out regularly. All the sports facilities Indoor and Outdoor are reviewed and improved as and when required.

The Director, on behalf of the Management, undertake initiatives like Tree Plantation, maintaining Lawns, develop Garden & Nursery Maintenance of Garden and Landscape is done meticulously. Mowing the

Lawns and Pruning and treaming of the bushes & borders is our regular activitiy. Entire plantation on the campus is supported with drip irrigation and sprinkler system promoting optimum use of water- the valuable resource. Rain harvasting is also done to conserve the water and to raise the water table.of the campus. Regular watering of The Regular use of fertilizers, insecticides and pesticides is taken care of. to improve the physical ambience in the Campus. All the above works such as Identification of the requirement, award of work, Supervision, Monitoring and Execution etc. is taken care by the Maintenance Team.

Due to the large number of computers & networking, a System Administrator and a Network administrator with their staff look after the maintenance of computers & the networking. All the computers are regularly checked for both Hardware and Software count . Protected with Quickheal Admin Consol. All are shielded with Firewall( Cyberoam 500ia).Calibration of most of the equipments is done by the Staff of the respective Departments, rest is outsourced to a standard organizations or its authorized agents.

A team of Security with 1 Supervisor ,1 Chief & 18 Security men look after the Security of entire Campus.

Thus all the activities associated with the maintanance and upkeep of the Building, Lab Equipment, Playground, Electrical installations , Internet connectivity, CASERP, Surveillance System., Optical Fiber Networking (LAN and WAN) are taken into account and a separate system is functional to take care of each aspect.

Books in the library are regularly check for termite, rats or any other insects.Fumigation is carried out on regular basis to protect from insects.Book binding is done at regular interval of time .Day to day cleanliness is supplimented with use of Naphthlin balls. binding of periodicals putting together Quarterly .Half yearly and yearly issues annually to our reference section. The PG dissertations and Ph.D theses are preserved in the library for future reference.

Only creating the infracture is never enough but its functioning utility has to be maintained on sustainable basis in the interest of maximum beneficial utilization by the inmates.

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

NAAC

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

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

**Response:** 63.96

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 1207    | 1264    | 1467    | 1326    | 1250    |

#### File Description

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

#### Document

[View Document](#)

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

**Response:** 0.39

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

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

#### 5.1.3 Number of capability enhancement and development schemes –

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

**A. 7 or more of the above**

**B. Any 6 of the above**

**C. Any 5 of the above**

**D. Any 4 of the above**

**Response:** A. 7 or more of the above

| File Description  | Document                      |
|---|-------------------------------|
| Details of capability enhancement and development schemes | <a href="#">View Document</a> |

#### **5.1.4 Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years**

**Response:** 18.22

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 463     | 350     | 203     | 449     | 345     |

| File Description  | Document                      |
|---|-------------------------------|
| Number of students benefited by guidance for competitive examinations and career counselling during the last five years | <a href="#">View Document</a> |

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

**Response:** 2.07

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 86      | 96      | 02      | 0       | 13      |

| File Description                          | Document                      |
|---|-------------------------------|
| Any additional information                | <a href="#">View Document</a> |
| Details of the students benefitted by VET | <a href="#">View Document</a> |

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

**Response:** Yes

| File Description  | Document                      |
|---|-------------------------------|
| Details of student grievances including sexual harassment and ragging cases | <a href="#">View Document</a> |

## 5.2 Student Progression

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

**Response:** 2.45

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 17      | 11      | 05      | 09      | 05      |

| File Description  | Document                      |
|---|-------------------------------|
| Self attested list of students placed                   | <a href="#">View Document</a> |
| Details of student placement during the last five years | <a href="#">View Document</a> |

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

**Response:** 4.32

#### 5.2.2.1 Number of outgoing students progressing to higher education

**Response:** 16

| File Description                                   | Document                      |
|--|-------------------------------|
| Details of student progression to higher education | <a href="#">View Document</a> |



### 5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: NET/SLET/GATE/ GMAT/CAT, GRE/ TOFEL/ Civil Services/State government examinations)

**Response:** 2.12

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 12      | 04      | 1       | 1       | 0       |

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 198     | 167     | 145     | 69      | 34      |

#### File Description

Number of students qualifying in state/ national/ international level examinations during the last five years

#### Document

[View Document](#)

## 5.3 Student Participation and Activities

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

**Response:** 5

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

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

| File Description   | Document                      |
|--|-------------------------------|
| Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years | <a href="#">View Document</a> |

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

#### Response:

- As per the Rules and regulations under provision of section 40 of the Maharashtra Universities act, 1994 and guidelines provided by SRTMU University, Nanded, the Student Council is formed.
- Adequate funds are provided by the Institute.
- Our motto is Total Personality Development of the students so plenty of sports and cultural activities are organized throughout the year. Students are encouraged to participate in outside competitions. This is with the purpose of exploring and bringing out best talents of the students. Our College team has consecutively won the general championship in the University Youth Festival. Also our students were selected for inter University competition.
- Student representation is there on Internal Quality Assurance Cell (IQAC).
- Professional clubs like CESA, MESA, CUC, ITSA and ETA support the active academic environment.
- Students are encouraged to participate in outside competition such as BAJA, Robotics, Bridgit, Autocad etc. and other Paper presentations competition and have won many awards.
- Students participate in academic monitoring.
- All student representatives are selected on the basis of their merits and organizing capabilities in the concerned sports/cultural activity. They are expected to promote and organize the various activities in the campus and keep it active throughout the year.
- The Institute encourages the students to participate in various sports such as Athletics, Chess, Badminton, Table Tennis, Carom, Football, Cricket, Volleyball, Swimming and Basketball etc.
- The annual social gathering is held every year. The Students' Council organizes many activities through its representative's are assign from both Boys and Girls viz. Sports Coordinator, Cultural Secretary, NSS Coordinator. Girls are encouraged for participation in sports and cultural activity.
- The activities are organized and conducted by the students under the guidance of faculty members.
- JHANKAAR the annual social gathering of M.G.M's College of Engineering is very popular event in the vicinity. The Name Jhankaar was given by the first batch of the college in 1984 and continued since then.
- Few events under Student council are :
  1. Participation in youth festivals
  2. Road Safety campaign
  3. General and Technical Quiz
  4. Donations for social causes
  5. Annual gathering
  6. Blood Donation Camp
  7. Tree Plantations
  8. Other Environmental Activities.

**CONSTITUTION (Year 2017-18)**

| Sr. No. | Designation                   | Member  |
|---------|-------------------------------|---|
| 1       | Chairperson                   | Dr. Mrs. G.S. Lathkar, Director, MGMCE                          |
| 2       | NSS Program Officer           | Dr. Kalpeshkumar. M. Sharma                                     |
| 3       | Student Council Incharge      | Mr. Pankaj P. Pawar   |
| 4       | General Secretary             | Sunil Zabbu Rathod (BE Mech)                                    |
| 5       | Cultural Secretary            | 1. Vaishnavi Deshmukh BE(CSE)<br>2. Salringra Momin BE(CSE)     |
| 6       | Sports Secretary              | 1. Akshay Borse BE(CIVIL)<br>2. Srinivas Deshmukh BE(CIVIL)     |
| 7       | Girls Hostel Representative   | Nazneen Khan BE(Civil)  |
| 8       | Boys Hostel Representative    | Rohit Fulari BE(Mech)   |
| 9       | Ladies Representative (Girls) | 1 Akanksha Girgaonkar BE(ECT)<br>2 Nazneen Khan BE(Civil)       |
| 10      | NSS Secretary                 | 1. Rohit Fulari BE(Mech)<br>2. Madhura Joshi BE(ECT)            |
| 11      | Magazine Secretary            | 1. Channawar Priyanka S. BE(ECT)<br>2. Deshmukh Sneha A. BE(IT) |

**5.3.3 Average number of sports and cultural activities/ competitions organised at the institution level per year****Response:** 30**5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year wise during the last five years**

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 30      | 29      | 30      | 30      | 31      |

| File Description   | Document                      |
|--|-------------------------------|
| Number of sports and cultural activities / competitions organised per year | <a href="#">View Document</a> |

## 5.4 Alumni Engagement

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

#### Response:

- Strong alumni network of our Institute is our asset. Coincidentally having the same Director since inception and many faculty members working for more than 25 years with us we have a good rapport with our pass outs right from the first batch. It is a matter of keen interest of our Hon. Chairman who always encourages us.
- Alumni meetings are arranged on regular basis. Such meetings have been organized at Pune, Delhi, NOIDA and USA along with Nanded.
- For all our annual social gatherings we call our outstanding achievers from alumni to be our chief guests. This interaction and sharing success stories of eminent alumni helps the students in a great manner.
- Alumni help us organizing industrial visits and training also the placements. Training in organization like HAL was possible because of our Alumni working there.
- We have launched special group activity Alumni Interaction as Mentor (AIM) on 02 October 2016 through this 05 students are allotted to each alumni. There is encouraging response from our alumni to provide guidance and professional support for developing their career competence.
- Each department organizes guest lectures of alumni for students. This helps to know current trends and upcoming technologies in the industry. Training and placement cell continuously interact with alumni for skill development and career guidance
- Active social networking groups are formed for regular interaction with alumni. Director and staff members of the Institute are part of this interaction. All current updates and various activities are shared on social networking.
- The Institution implements most of the suggestions given by alumni in the interest of the students regarding laboratory and curriculum development.
- A web page on our Institute website has been created for alumni registration. All pass out students register themselves on this web page and thus a database of alumni is generated automatically.
- In the last alumni meet at NOIDA in Feb 2017, an amount of INR 2.5 lakhs has been collected as initial contribution for alumni fund. Registration of alumni association is in process.

· We take pride in our alumni having placed in organizations of repute World over like Intel, Microsoft, Google, L&T, Bosch, Tata Motors, BHEL, HAL, Bombardier, Gammon India, Hiranandani, GMR and many more.

· Also the government organizations like PWD, Water Resources Department, Indian Railways, Indian Oil, ONGC, NIC, Civil services and all Defence services.

· We are proud of our distinguished alumni who have received National and International recognition for their exemplary contribution.

To name a few –

1. Lt. Col. Mukund Sarsar – Gallantry award from President of India.
2. Mr. Narendrapal Singh Sidhu – Best employee award by Indian Oil.
3. Mr. Mukesh Jain- Gold Star award by Microsoft, USA.
4. Mr. Prashantsinh Bhadoria- Team leader for first Indigenous Indian fighter aeroplane HTT40.
5. Kirthiga Reddy - Global Head Marketing, Facebook , USA
6. Gaurav Anand - Territory Manager, Wipro
7. Dr. Munir Sayyad - Associate Vice President, Reliance Jio, Mumbai

#### 5.4.2 Alumni contribution during the last five years

<1 Lakh

1 Lakh - 3 Lakhs

3 Lakhs - 4 Lakhs

4 Lakhs - 5 Lakhs

**Response:** 3 Lakhs - 4 Lakhs

| File Description                      | Document                      |
|---------------------------------------|-------------------------------|
| Alumni association audited statements | <a href="#">View Document</a> |

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

**Response:** 5

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

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

| <b>File Description</b>  | <b>Document</b>               |
|--|-------------------------------|
| Number of Alumni Association / Chapters meetings conducted during the last five years. | <a href="#">View Document</a> |
| Any additional information   | <a href="#">View Document</a> |

NAAC

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

#### 6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the institution

##### Response:

The Governing council is the apex body of the Institution led by competent professionals. Governance of the Institution is like blood circulation system flowing from the main source to the most remote part of the system to and fro.

The Chairman of the Trust leads the Governing Council formed as per AICTE norms with Management Trustees, Experts from Industry and Education, Nominations from regulatory authorities and Senior faculty of the Institution. The Director of the Institute works as the Secretary to this Governing council and is responsible for execution of the decisions, conduction of the meetings, regular functioning and monitoring the activities on campus maintaining harmony. Governing council looks after the critical functions like planning for budget, approving the expenditures, recruitment of required manpower. It takes periodical reviews of the functioning of the Institute and prepares strategic plans. For the convenience and effectiveness of functioning various committees are assigned.

The various committees formed could be broadly classified into three categories:

#### 1. Planning and developmental committees

- Planning and Finance Committee
- Building Construction and Maintenance Committee
- Purchase Committee
- Library Committee
- Alumni Committee

#### 1. Academic administration cells

- Academic Cell
- Exam Cell
- e-Governance Cell
- Training Placement Cell
- Technical Events Cell

#### 1. General administration committees

- Sports Committee
- Cultural Committee
- NSS Committee
- Anti-Ragging & Discipline Committee
- Vishakha Samiti
- SC/ST Committee

- Grievance Redressal Committee

Each committee comprises of Director, concerned HODs and Officials. Students' representation is there in Technical Events, Sports and Cultural Committees. Vishakha Samiti and SC/ST Committees are formed as per provisions of act and statutes of SRA and Government directives.

The governance is ensured to be participative imbining human values in students' education with continuous improvement.

e-Governance and digitalization has been taken up on an expanding scale.

Academic auditing is done internally by a committee of senior Professors.

In concurrence with our mission, collaborations with the academic Institutions and Industries are always encouraged. We have collaboration with Indo German Tool Room, Oracle, Texas Instruments, Rucha Industries, Pavan Group of Industries, Cygni Digitals etc. Academic collaborations include IIT Bombay, IIT Kharagpur, COE Pune and SGGSI&T Nanded. We work on strengthening the Alumni Network to foster the Industry-Institute interaction.

Our Director and faculty have got the international exposure and contacts. They have visited many Universities abroad. Director had been member of Indo-US Forum through which International workshops and Conferences were attended and organised. We have good contacts with the universities like North Western University, Illinois University and the Professors visit our Institute and conduct expert lectures for students and faculty sharing their knowledge and current research work. We have privilege of many IIT Professors visiting our Institute.

Recent funding of BARC for the Research Project in Medical Image Processing has boosted the R & D spirit.

The Chairman being alumnus of IIT Bombay is quality conscious and also was the policy maker being the Education Minister of the State. Other Trustees are well qualified competent professionals.

The Director and faculty members have got awards and recognition.

The leadership of our Institute has wide socio-educational recognition.

### **6.1.2 The institution practices decentralization and participative management**

#### **Response:**

Managing the academic as well as administrative functions of the Institution is a team work. Involvement of working elements at all levels gives strength and effectiveness for the functioning. With the Governing council and the Director we try to involve maximum faculty in the institutional functioning with the help of different committees taking care of specific issues.



Academic functioning is carried out with the support of Dean academic, academic coordinator for each department, class in charge for each class, internal test in charge, Seminar/ Project in charge, Training placement officer, Mentors etc.

Faculty members along with head are involved in equipment purchase, preparation of budget & improving the infrastructure.

The general functioning is supported with Library, Cultural, Sports, NSS/NCC, discipline, Vishakha committee, MGM helpline, Grievances Redressal committee etc.

### **Case study showing practicing decentralization and participative management in the institution**

#### Academic cell

The academic cell was first formed in the year 2005. It was thought that instead of superior authority asking for the report and expecting the fellow colleagues submitting the same the system invites a natural resistance. Whereas, peer pressure if introduced works better leading to effective functioning maintaining cordial environment.

Along with Director Dean Academic takes care of the planning, conduction, assessment and corrective measures for functioning of academic cell.

Along with Head of the Department each department has got an academic cell coordinator to take care of the departmental activity. Each class is having a class in charge to monitor the class activities.

Academic cell plans the academic calendar and decides the measures to be taken for achieving maximum number of working days.

Academic cell ensures that the teaching plan for each subject is ready with respective subject teachers before the semester commences.

HOD assigns the mentors for group of average 20 students to follow-up their progress and performance keeping their parents in contact.

Work load distribution is done by the Head of Department according to expertise and interest of the individual faculty members.

Departmental time table is prepared by time table in charge for each department and reviewed by academic cell.

Director is involved in all activities appropriately.

Daily reports are maintained for conduction of theory as well as practical classes by the academic cell coordinator of respective department.

Monthly conduction report is prepared and submitted to Dean Academic through Head of Department.

If teacher is on leave he/she is expected to make a provision for conducting his/her theory or practical

classes with alternative arrangement by another subject teacher of the same class before getting the leave sanctioned.

Such loss of lecture/practical session has to be compensated by the teacher availing the leave later to maintain the number of lectures conducted against scheduled.

The report is sent to all the parents through SMS regarding attendance and test marks.

The meeting is organized by the mentors for the defaulter students along with their parents with Head of Department and Director.

Now all these systems are converted in on line operational mode with the help of CASERP software.

## 6.2 Strategy Development and Deployment

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

#### **Response:**

Installation of online College Administration system was part of strategic plan. Earlier it used to be done manually. It was resolved to get it into online mode by implementing the CASERP software by WORDPRO Computers in enhanced manner taking care of all aspects of Institutional functioning i.e. Academic Administration, Financial & General Administration.

#### **Academic administration:**

##### **Students**

The institutional unique login ID & email ID was given to each student. Academic calendar is displayed on website taking care of all curricular and co-curricular activities, cancelled holidays, etc.

The subject wise teaching plan was put online to be available to all concerned students. Time table was displayed online for all departments and classes. Daily attendance was updated online to monitor the students presence.

Along with the attendance we started updating parameters like Test marks, Term work marks, online.

For keeping the parents informed about performance of their wards, CASERP user ID enables them to access the information online. Also SMS is sent after every internal test to the parents giving information about the test score and the attendance.

College website was reviewed & re-launched taking care of static and dynamic parts of the same. Facilities and activities were placed online for viewing.

##### **Faculty**

Every faculty can monitor the total number of lectures conducted against scheduled lectures online to review status of the syllabus completion individually through class conduction reports.

Faculty can monitor the attendance of all the students online.

In case the teacher is on leave, provision for alternative arrangement is also there in CASERP.

The result analysis is also available online.

All the time information is available instantly.

### **Financial Administration**

Online accounting system is installed.

State Bank of India was chosen to maintain online transaction system through SBI collect.

Students can deposit their fees online in SBI account. They also get their status of paid and outstanding fees online through their login. This facilitated the students in a great way. Their time for standing in the queue in bank as well as college office was saved. All the heads under which students have to deposit their fees like, Tuition fees, Development fees, Eligibility fees, Exam fees, etc were taken care of with the help of CASERP and individual student's ledgers are maintained. The commissions to be paid for the transaction through DD also started getting saved.

The reports about recovered and outstanding fees from individual students as well as scholarships receivable from the Government are maintained online.

Salary slips are generated for the respective staff & could be seen online.

Daily collection report is maintained online.

Also for the college the online payment system is installed to take care of bills to be paid.

### **General Administration**

E-wallet is created for individual faculty & students to save their relevant certificates in the scanned form. These can be accessed at any time from anywhere.

Biometric attendance system started

The leave of teaching and non teaching staff is also maintained online.

Documents to be frequently issued like Bonafide, Expenditure, Transfer certificates are generated online.

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

## **grievance redressal mechanism**

### **Response:**

Governing body: The apex Governing Body is the Governing Council. The constitution of Governing Council is as per guidelines of AICTE. The Governing Council is lead by the Chairman of the parent Trust Mahatma Gandhi Mission. Along with the Chairman four Trustees of the parent Trust are members.

The Western Regional officer of AICTE and Director of Technical Education are part of the Governing Council (Ex officio).

An Industrialist/Technologist/Educationalist approved by the Chairman is the member of the Governing Council.

The nominees of affiliating body, the State Government are also part of Governing Council.

Two senior faculty members are nominated on Governing Council by the Chairman.

Director of the Institute works as secretary of the Governing Council.

Governing Council is solely responsible for all important policies and operational decisions related to functioning of the Institute.

### **Administrative Setup:**

The Governing Council has delegated all powers to the Director of the Institute for execution of their decisions in regard of academic, financial as well as administrative matters.

Director delegates his/her authority to the Vice-Principal, Heads of the Departments to appropriate extent to facilitate the functioning. Each branch of Engineering is associated with a separate Departmental establishment led by Heads of the Department. The HOD ensures involvement of all faculty members of their Departments appropriately. Faculty members get the assistance from the technical supporting staff and attendants.

Library, a major resource of the academic functioning is operational as a separate entity.

To take care of the administration Registrar is supported with Accounts Officer, Students section in-charge, Store Keeper and security officer along with the supporting staff of their sections.

The estate manager with supporting staff takes care of maintaining the building facilities. Neat and clean campus taking care of green surroundings adds to the conducive environment.

Training and Placement officer supported by the Departmental coordinators takes care of the additional training and organizes interviews for the placement of the students.

Special efforts are taken to develop and maintain Alumni network at every level.

Dedicated for specific purpose various committees are assigned by the Director to facilitate the functioning.

IQAC (Internal Quality Assurance Cell) takes care of the quality enhancement in every operational aspect of the institutional functioning.

Functions of Various Bodies: The functions of various bodies are well defined through roles and responsibilities duly circulated.

Service Rules: All service rules are applicable as per AICTE, State Government and University. Also some additional conditions are laid down by the MGM Trust.

Procedures: All standard procedures are practiced in accordance with the Statutory Regulatory Authorities.

Recruitment: Basis for the recruitment of number of teaching faculty is according to the AICTE norms. The reservation policy is applied in accordance with the University.

Promotional policies: Due promotions are given to the faculties acquiring higher qualifications and experience.

Grievance redressal mechanism: Redressal mechanism for various kinds of grievances exists through different committees like 'Anti-ragging', 'Vishakha' and 'Employees' Grievance Redressal committee'. Special appointment of ombudsman is done to take care of unbiased enquiry.

### **6.2.3 Implementation of e-governance in areas of operation: 1.Planning and Development 2. Administration 3. Finance and Accounts 4. Student Admission and Support 5.Examination**

**A. All 5 of the above**

**B. Any 4 of the above**

**C. Any 3 of the above**

**D. Any 2 of the above**

**Response:** A. All 5 of the above

| <b>File Description</b>   | <b>Document</b>               |
|---|-------------------------------|
| Details of implementation of e-governance in areas of operation Planning and Development,Administration etc | <a href="#">View Document</a> |
| Any additional information  | <a href="#">View Document</a> |
| Screen shots of user interfaces   | <a href="#">View Document</a> |
| ERP Document  | <a href="#">View Document</a> |

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

##### Response:

Various committees have been formed in the Institute to conduct the academic and administrative activities smoothly. We ensure participation of all the faculty members with appropriate delegation of authority.

The activity chosen here is internal assessment of the students over the academic year 2016-17.

Right from planning the academic calendar how the assessment activity is co-ordinated through various committees is evident from following details.

List of tasks to complete the activity:

| Details of meeting   | Discussion of Tasks to be carried out  | Implementation  |
|--|--|---|
| Academic Cell meeting was held on 6 <sup>th</sup> June 2016              | Academic calendar was discussed and planned. First semester had 92 working days.<br><br>The details of working days available in each month were planned along with cancellation of holidays compensating for additional Diwali vacations.   | Accordingly Academic executed. Two public one Sunday kept working   |
| Internal examination cell meeting was held on 11 <sup>th</sup> July 2016 | Invigilators were assigned for conduction of the test with fair distribution of duties for the tests to be conducted on 11,12,13 <sup>th</sup> August & 26,27,28 <sup>th</sup> September.<br><br>The Guidelines for invigilators and disciplinary rules for the students were drafted.<br><br>The central assessment schedule was prepared and communicated. Result declaration decided on 18 <sup>th</sup> August & 30 <sup>th</sup> September. | List was circulated and invigilation duties were<br><br>The rules and guidelines were circulated.<br><br>Accordingly the results were displayed & SMS were sent to parents. |
| Meeting of library committee was held on                                 | It was proposed to provide the night library   | Accordingly night library   |

|  |  |   |
|--|--|---|
| 12th July 2016   | facility for two weeks for each test including the earlier week.   | provided.   |
| Purchase committee meeting was held on 5th May 2016.                   | Considering the number of students appearing for each course and total requirement of the answer sheets it was decided to place the order for required stationary.   | Accordingly the order was for 55000 answer sheets.  |
| Discipline committee meeting was held on 4th August 2016.              | The squad of senior faculty members was assigned comprising of Dr. D.V. Pattewar, Mr. Hashmi S.A., Dr. J.S. Sidhu, Dr. Mrs. K.C. Jondhale.   | The squad looked after discipline in the prohibiting malpractices.  |
| Maintenance Committee meeting was held on 5th August 2016.             | <ol style="list-style-type: none"> <li>1. The furniture position was reviewed taking into consideration the strength appearing for the test.</li> <li>2. The electrical appliances were ensured in place and in working condition.</li> <li>3. Camera surveillance system was checked to be in place and functioning.</li> </ol> | The concerned maintenance related to furniture appliances and Camera ensured for respective tasks.                |
| Meeting of Grievance redressals committee was held on 8th August 2016. | Every teacher was communicated to circulate the answer sheet in the class and have open discussion for the right answers and invite the grievances if any.   | Accordingly the results were observed by individuals immediately after declaration of results for both the tests. |

Above chart explains the effectiveness of the internal assessment for the first semester of academic year 2016-2017 through various committees.

### 6.3 Faculty Empowerment Strategies

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

**Response:**

**The institution has effective welfare measures for teaching and non-teaching staff as mentioned below:**

1. **Freeship:** Freeship in fees is given to the Wards of employees of the Institution.

2. **Medical Expenses:** In emergency (critical situation) medical expenses are given.

3. **Education:** Free education to the wards of deceased staff is given.

4. **Employment:** Appropriate jobs are given to the dependants of deceased staff.
5. **Advance against salary:** In case of medical or other emergency needs, advance against salary without interest is given.
6. **Provident Fund:** PF is given to the staff (If applicable as per rules of Govt).
7. **Gratuity:** Gratuity is given to the staff.
8. **Leave Encashment:** Leave encashment is given at the retirement.

### 6.3.2 Average percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

**Response:** 37.94

6.3.2.1 Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year wise during the last five years

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 27      | 39      | 24      | 60      | 39      |

| File Description  | Document                      |
|---|-------------------------------|
| Details of teachers provided with financial support to attend conferences,workshops etc. during the last five years | <a href="#">View Document</a> |
| Any additional information  | <a href="#">View Document</a> |

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

**Response:** 3

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



|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
| 2       | 1       | 4       | 7       | 1       |

| File Description  | Document                      |
|---|-------------------------------|
| Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).  | <a href="#">View Document</a> |
| Any additional information  | <a href="#">View Document</a> |
| Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff | <a href="#">View Document</a> |

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

**Response:** 52.73

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

|         |         |         |         |         |
|---------|---------|---------|---------|---------|
| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
| 47      | 41      | 73      | 77      | 28      |

| File Description   | Document                      |
|--|-------------------------------|
| Any additional information   | <a href="#">View Document</a> |
| Details of teachers attending professional development programs during the last five years | <a href="#">View Document</a> |

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

**Response:**

Appraisal in our Institute is done in many ways to assess and enhance the quality of performance of the individuals time to time.

Feedback obtained from all the elements involved gives the pulse of teaching learning process in the institute and guides to plan for further strategies for improvements. Continuous improvements are the sole of existence of education systems. The primary feedback is directly from the students who are the end

receivers.

### 1. Feedback from students

A feedback is taken from the students twice, every semester. It is confidentially given by the students without mentioning their names. The feedback form comprises of several criteria that evaluate the performance of the teaching faculty as well as supporting services of nonteaching staff. Every point is assessed by maximum four marks associated with excellent, good, satisfactory and not satisfactory performance.

Secondly, the feedback is also taken for the practical sessions in the respective laboratories.

The last section of the feedback form is filled for the opinion in respect of the Director and Head of the department. Also the services like Library, Training and Placement, Student section, Account section, and the facilities related to Sports, Canteen etc.

Considering student as the most important factor, the Institute invites suggestions from them in the last part of the feedback form.

The feedback is analysed and a meeting is called by the head of the department. A common meeting is called thereafter with the director wherein the faculties with best feedback are praised. The suggestions are given to the concerned faculties by HOD and the Director for the betterment. The Chairman is also part of such meeting.

### 2. Self appraisal

**We believe that any improvement rises from within and cannot be induced from outside. So the teachers if made to think themselves regarding their performance and the improvements to be brought therein, it gives a positive impact.**

Self appraisal is submitted to the Director every semester by the teaching faculty. It comprises of the issues like attendance of the faculty, lectures conducted against the scheduled number of lectures, syllabus completion, paper assessment, result analysis, conferences attended, publications etc. The self appraisal form is analysed by the HOD and submitted later on to the Director for the remarks.

**3.** According to the feedback received from students and from the Head of the department, the best teacher is selected from every department. He/she is honoured in annual social gathering. A gold medal and books worth Rs. 5000/- are given to the faculty by the Institute.

The 360 degrees feedback is the ultimate aim. All the stakeholders involved in the processes of education should be part of it. For a teacher to give the feedback about his teachings students along with their parents, the fellow colleagues, the senior colleagues, Head of the departments, Head of the Institute, Management and employers of the students everybody's opinion is important. Accordingly we attempt to collect all these opinions from time to time in the interest of our continuous improvement.

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution conducts internal and external financial audits regularly

#### Response:

**The institution gets statutory financial audit conducted by a Chartered Accountant firm as per provisions of Bombay Public Trust Act, 1950 regularly.** No internal audit is conducted. The statutory auditors visit institution from time to time during the year and check all the records of the institution vigorously and scrutinize procedures and policies followed by the institution.

If there are any deficiencies or lacunae pointed out by the auditors or if they require any additional information or explanation, concerned authorities of the institution discuss the requirement with the auditors and comply with it. If any rectification is required the same is carried out expeditiously in consultation with the auditors.

Thus, audit observations are complied with in full on urgent basis.

As can be seen from audit reports for last 5 years i.e. from FY-2013 to 2017 there are no un-complied audit observations.

#### Balance Sheet

| Financial Year | Date of Audit |
|----------------|---------------|
| 2012-13        | 15/05/2013    |
| 2013-14        | 24/06/2014    |
| 2014-15        | 22/06/2015    |
| 2015-16        | 19/07/2016    |
| 2016-17        | 17/08/2017    |

Interim audit conducted by Chartered Accountant office quarterly and discrepancy or procedural lapses, if any are settled.

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

#### Response: 0

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

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

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

#### Response:

**Strategies for Mobilization** of Funds includes searching for new means for generating resources. Also utilization of available resources in most effective manner could be part of this activity.

Since we are self financed un-aided Institute our prime source of income for the institute is the fees received from the students, which is approved by the fees fixation committee nominated by the State Government, based on the expenditure of previous academic year for salaries of staff, maintenance of infrastructure and other admissible administrative expenses.

Majority of the students are from rural area and belonging to the families depending on agricultural source of income with challenging economic conditions. We allow the fees to be paid in instalments so that students and parents are comfortable to cope up with the total fees payment throughout the year.

As fees are received, the fixed deposits are made for the maximum possible number of month's salary and committed expenditure in the interest of smooth working of Institution.

We try to generate the additional funds with the help of funded research projects from various agencies like AICTE, DST, UGC and other organizations like BARC. Consultancy, testing services and organizing employee trainings for Government and other organizations provide additional ways and means for funds generation. However, because of dearth of industry in vicinity, consultancy and testing services have got limitations.

Budget is prepared by planning and finance committee in every January for the next financial year and submitted to trust office for approval of Governing Council. It is observed that the expenses are done in accordance with the sanctioned budget, monitoring the expenses quarterly. Reallocation of budget is done if required in the month of October.

The Institute is developed over a period of 35 years hence, we have been optimizing the infrastructural resources since beginning till we have achieved the present status of fulfilling all AICTE norms for infrastructure.

We promote the optimum utilization of all kinds of resources in the campus. Energy utilization is done carefully maintaining the database of daily consumption, promoting use of LEDs and Solar power.

Rain water harvesting is done for water conservation. Awareness is spread amongst students to be conscious of these limited resources. Implementing digitalization we are leading to paperless administration adding to environmental conservation.

We always optimize the human resource and try to maximize work throughput by individuals at all levels.

## 6.5 Internal Quality Assurance System

### 6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the

## quality assurance strategies and processes

### Response:

For inculcating the quality culture and establishing appropriate ways and means to monitor the quality. IQAC was formed as per the guidelines of NAAC on 1/11/2016. It was resolved to identify the quality issues related to Institutional function and keep improvising the same.

**Surveillance System:** In the first IQAC meeting it was recommended to upgrade the existing surveillance system.

It was decided to install IP based HD cameras with night vision support in the campus to get better accessibility.

Accordingly, advertisement for the surveillance system tender was published in Lokmat News paper on 27-12-2016.

After all formalities negotiation meeting was held on 21-01-2017. The order to be placed for the selected vendor was forwarded immediately for approval in the meeting of Governing Council held on 22-01-2017, was approved and purchase order was issued to the vendor on 30-01-2017.

The surveillance system consists of A/V capture 2 MP HD cameras of following types:

- Cube cameras for Indoor i.e. Classrooms and laboratories
- Bullet Cameras for corridors
- Dome Cameras for Porch and site
- Sufficient NVRs for storing audio and video data.

The installation of the surveillance system got completed on 26-06-2017.

With the new system we got the fiber optics network spread over the major part of the campus which could be used for other audio/visual data transmission. Better surveillance is established in the campus. Accessibility for observing campus activities was enhanced for the concerned authorities.

**Employability Enhancement of the Students :** The current unemployment problem for the engineers is a matter of concern for the educational Institutes. The problem is un-employability because of the existing education system which cannot keep in pace with the speed of developments in the industry. To address this issue, following measures were discussed in IQAC meeting and implemented.

It was decided to take up the development of soft-skills and technical-skills of the students at a larger scale.

- **Innovation Center:** was established and inaugurated in collaboration with 'InnovationNext Pvt Ltd'. The students are enabled to go through thousands of creative applications with the help of innovation app leading to well oriented training for lateral thinking.
- **Incubation Center:** As next phase of innovation center, an Incubation Centre is being planned to be developed in the campus to encourage the entrepreneurship skills.
- **Spoken Tutorials Open Source Workshop of IIT Bombay:** We have 'Remote Center' of IIT Bombay for distance education program for faculty development and training the students. We

encourage students to register for Special 'College to Corporate' program organized by IIT, Bombay. It was discussed and decided to go on larger scale for conducting 'Spoken Tutorial Open Source Workshops' of IIT Bombay. For this activity, our Institute has been awarded as "Excellent Center" earlier.

- **Internship for the Students:** It was decided to explore the opportunities for sending the students for internship to the industries and the number of students was increased considerably in summer 2017 with deliberate efforts.
- **Placement Oriented Training:** Soft-Skills and Technical-Skills development programs were organized.
- **Sponsored Industrial Projects** got sanctioned.

| File Description           | Document                      |
|----------------------------|-------------------------------|
| Any additional information | <a href="#">View Document</a> |

### 6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

#### Response:

**In regards of reviewing and implementation of Teaching learning process with IQAC initiatives, two examples could be-**

#### FDP

It was observed that in spite of availability of state of art audio visual aids and Internet facilities, effective utilization of ICT (Information and Communication Technology) tools has not been achieved as yet. Completion of Mission 10X courses has to be complimented by additional ICT skills for the faculties.

It was decided in IQAC meeting to get faculty members registered for upcoming FDP by IIT Bombay-'Foundation Program in ICT for Education' and 'Pedagogy for Online and Blended Teaching-Learning Process'. It emphasized on innovative teaching learning methodologies. These FDP's were conducted on weekends from August to October 2017.

Our Remote centre is one of the first five centres of IIT Bombay, having got four stars and position among first Ten centres out of 350 across India.

This AICTE approved FDP was held under the aegis MHRD, Government of India. These FDPs consisted of two components:

- Online work by individual participants using a PC at home or office, on any convenient day, with an online test every week. Each participant has to spend 6 to 8 hours per week.
- Face-to-Face interaction: Participants will have to physically attend these sessions at their chosen or designated Remote Centres across India.

The participants learnt pedagogical skills like: Think-pair-share, Peer instruction, Collaborative problem solving, flipped classroom, adopting online/blended education in teaching learning process like MOOCs, Moodle and Wordpress.

37 participants successfully completed the FDP and assignments. As resolved in IQAC meeting, the techniques learnt in the FDP has to be adopted while teaching subjects in the upcoming semester. Few faculty members have started adopting these tools in their regular courses.

#### **Workbook :**

Subjects like Engineering Mechanics, Engineering Mathematics and Electrical Engineering are known for their contribution in the failure rate in first year engineering. It has been a perpetual challenge to get a good result in these subjects.

Engineering Mechanics deals with basic concepts applied for solving real life problems. Workbook could be a possibility to enhance the understanding of the subject.

Prof. K. G. Narayankhedkar, Director General, MGM's Engineering Institutions has initiated preparation of workbook with the help of concerned faculties of all the MGM's Engineering colleges.

Since then he has organized total 5 workshops of 3 to 5 days each on the topic "Effective Teaching Learning for Engineering Mechanics" where in the experts have delivered lectures of their assigned units, in accordance with part of workbook prepared by them. It was put to committee's comments for improvements and thus all the units were compiled.

A National workshop on the topic "Effective Teaching Learning for Engineering Mechanics" was organized at MGM COE, Navi Mumbai where experts from NITTTR, Bhopal were invited to share their expertise.

Finally few table discussion were held to give the final shape to the workbook which came to existence from the academic year 2017-18, one copy of each was given to the students of first year engineering from academic year 2017-18.

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

**Response:** 0.4

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 2       | 0       | 0       | 0       | 0       |

| File Description   | Document                      |
|--|-------------------------------|
| Number of quality initiatives by IQAC per year for promoting quality culture | <a href="#">View Document</a> |

#### 6.5.4 Quality assurance initiatives of the institution include:

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

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: B. Any 3 of the above

| File Description  | Document                      |
|---|-------------------------------|
| Details of Quality assurance initiatives of the institution | <a href="#">View Document</a> |

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

##### Response:

Continuous improvement and monitoring the quality is essential part of our functioning. Earlier quality aspects were being taken care of by every system without a structured framework.

IQAC has been formed as per the guidelines of NAAC in 1st Nov 2016.

Since establishment of IQAC the quality measures undertaken are as follows.

- Improvement in the surveillance system with IP based cameras with night vision.
- Faculty Development Programs (FDP) for enhancing use of ICT in teaching-learning process.
- Preparation of workbook for supplementing the studies of difficult subjects.
- Improving the infrastructure for the computer laboratories



NAAC

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

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

**Response:** 6

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 1       | 1       | 2       | 1       | 1       |

**File Description**

**Document**

List of gender equity promotion programs organized by the institution

[View Document](#)

**7.1.2**

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

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

**Response:**

Education is the foundation of a strong, well cultured and intellectual society, which is possible only when both boys and girls are treated equally and educated on equal terms. Ours is co-educational institute, there is no differentiation between boys and girls. They enjoy equal rights and opportunities. In 1996, 11 boys and 05 girls were the team members of the trekking group, they scaled Mount Jogin-III in Himalayas. Our nature loving club i.e. Tech-life organizes trekking expeditions in Sahayadrys and Himalayas for boys and girls.

We take pride to state that our student Ms. Shital Deshmukh is inducted as Major in Indian Army. Ms. Paramjeet Kaur inducted as Pilot in Indian Air- Force. Ms. Kirtiga Reddy was listed as the one of the most powerful women, among the first fifty in India, she also headed the Facebook India till 2016.

Ms. Chhaya Pujari got selected as Superintendent Engineer in PWD. Ms. Seema Pujari got selected as Executive engineer in PWD., Ms. Saroja Chhetri, Ms. Priyanka Dange got selected in UPSC.

Our girls are participating in NCC, shoulder to shoulder with boys. In our campus oftenly we arrange Karate classes for boys and girls. MGM's College of Engineering takes pride to mention that the

number of girls undertaking technical education is more than boys students.

On 8th March we celebrate Women's day every year. Books on eminent and successful lady personalities are distributed among the ladies staff.

For safety and security of girls' students, 'MGM Helpline' is established, since 2012. Activities in this include Anti-Ragging, counseling by Senior Ladies Faculties, transportation facilities to girls' students in late hours.

'Vishakha Samiti' members work towards counseling of girls students. Local lady Doctors and Lawyers are on the panel of counselors' for girls students.

A well furnished and hygienic common room is available for the girls students. Hygiene is a vital issue that is observed hence, in this institute three sanitary napkin vending machines along with incinerator are installed in girls' common room and in ladies hostel also.

oom and in ladies hostel also.

### 7.1.3 Alternate Energy initiatives such as:

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

**Response:** 0.91

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

Response: 4

7.1.3.2 Total annual power requirement (in KWH)

Response: 441

| File Description  | Document                      |
|---|-------------------------------|
| Details of power requirement of the Institution met by renewable energy sources | <a href="#">View Document</a> |

### 7.1.4 Percentage of annual lighting power requirements met through LED bulbs

**Response:** 18.22

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

Response: 3.346

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 18.36

| File Description   | Document                      |
|--|-------------------------------|
| Details of lighting power requirements met through LED bulbs | <a href="#">View Document</a> |

### 7.1.5 Waste Management steps including:

- Solid waste management
- Liquid waste management
- E-waste management

#### Response:

Dried leaves from garden plants and trees during fall season and also in other seasons are collected and composted, which is then used as manure in our nursery.

All other solid and liquid wastes from the campus goes to municipal waste management system. A well furnished and hygienic common room is available for the girls students. In this institute three sanitary napkin vending machines along with incinerator are installed in girls' common room and in ladies hostel also for waste disposal.

As far as E-waste is concerned old computers in working condition are donated to nearby schools. Old computers and electronic devices which are not in working condition are scraped for recycling, old batteries from UPS are properly disposed to be recycled. Students are also motivated to use the scrap for making some innovative projects.

Technical competitions like Tech. Expo, Junkyard wars were organized, in which waste material is utilized for making some innovative projects. Old tyres, electric motors, engines , gear boxes, fans, used capacitors, fabricating material like angles, shafts, parts of old air-conditioners etc. were effectively utilized by the students in the campus to make some innovative projects like lawn cutter, agricultural attachments, remote control operated wheel chair for differently-abled, parts of robot arm, test rig for air-conditioners, grain grinder, solar water heater etc.

### 7.1.6 Rain water harvesting structures and utilization in the campus

#### Response:

As many parts of our country are facing drought, Marathwada region is no exception. Our Institute has taken adequate measures to preserve and effectively use this precious resource. Apart from having RO Plant to meet drinking water needs in the campus, including boys and girls hostel. Proper waste disposal is also in place as per municipal standards. In our campus we have three points for Rain Water harvesting.

The water from the building top of the Institute and the hostel buildings is diverted to the bore wells at three different points which help in maintaining the water level in the bores throughout the year, also this improves the water table in vicinity.

If we calculate in terms of percentage, out of the total rain water collected on the roof tops 85% goes into the harvesting points.

### **7.1.7 Green Practices**

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

#### **Response:**

For sustainable development and environmental consciousness many students and staff members use bicycle for coming to the campus. Car pooling and two wheelers pooling is followed by many students and staff members in the institute.

Public transportation is available such as bus, three wheelers student and staff use them.

Institute has made it mandatory that no plastic cups and plastic plates be used in campus.

At corporate level all the records like:

1. Attendance of students
2. Marks of internal assessment
3. Students records
4. Staff leaves
5. Messaging to the parents
6. Students fees record
7. Staff salary details
8. D-wallet
9. Biometric attendance (staff ) are maintained digitally in CASERP (Paperless)

A lush green campus with nine lawns and more than one thousand trees and many fruit trees are well maintained in the campus. All these plants and green lawns are irrigated by drip irrigation and sprinkler system, which saves a lot of water.

Under the activity of nature loving club Tech-life( Techno-crats living in friendship with environment) students and staffs encourage the local public to come and make eco-friendly Ganpati idols using clay, in the campus. During Ganpati visarjan our students work in teams and collect Nirmalya near the visarjan points, and dispose it in an eco-friendly way, thereby protecting the river from pollution.

**7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years****Response:** 0.82

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

| 2016-17 | 2015-16 | 2014-15 | 2013-14 | 2012-13 |
|---------|---------|---------|---------|---------|
| 4.05    | 4.6     | 2.63    | 3.62    | 3.74    |

**File Description****Document**

Details of expenditure on green initiatives and waste management during the last five years

[View Document](#)**7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:**

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

**A. 7 and more of the above****B. At least 6 of the above****C. At least 4 of the above****D. At least 2 of the above****Response:** C. At least 4 of the above**File Description****Document**

Resources available in the institution for Divyangjan

[View Document](#)

**7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years****Response:** 16

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

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

**File Description****Document**

Number of Specific initiatives to address locational advantages and disadvantages

[View Document](#)**7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)****Response:** 16

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

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

**File Description****Document**

Details of initiatives taken to engage with local community during the last five years

[View Document](#)**7.1.12****Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff****Response:** Yes

| File Description   | Document                      |
|--|-------------------------------|
| URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics | <a href="#">View Document</a> |

| <b>7.1.13 Display of core values in the institution and on its website</b> |                               |
|--|-------------------------------|
| Response: Yes  |                               |
| File Description   | Document                      |
| Provide URL of website that displays core values                           | <a href="#">View Document</a> |

| <b>7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations</b> |                               |
|---|-------------------------------|
| Response: Yes   |                               |
| File Description  | Document                      |
| Details of activities organized to increase consciousness about national identities and symbols   | <a href="#">View Document</a> |

| <b>7.1.15 The institution offers a course on Human Values and professional ethics</b> |                               |
|---|-------------------------------|
| Response: Yes   |                               |
| File Description  | Document                      |
| Any additional information  | <a href="#">View Document</a> |

|   |  |
|---|--|
| <b>7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions</b>  |  |
| Response: Yes   |  |
| <b>7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years</b> |  |
| Response: 5   |  |



| File Description   | Document                      |
|--|-------------------------------|
| List of activities conducted for promotion of universal values | <a href="#">View Document</a> |

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

#### Response:

National festivals are celebrated on a grand scale in our campus denoted by maximum attendance of students with full of enthusiastic activities like parade, poster presentations, competition of inspirational patriotic songs, essay and debate competition including cleaning the campus fostering for spirit of Nationality and dignity of labour.

Commemorating the National Heroes and Leaders contributing to the history of Nation is taken care of observing their Birth and Death anniversaries

#### List of Birth / Death Anniversaries Celebrated in the Institute

| Sr. No. | Birth Anniversaries & Death Anniversaries               | Date          |
|---------|---|---------------|
| 1       | Savitribai Phule Birth Anniversary                      | 3rd January   |
| 2       | Shri Guru Gobindsinghji Birth Anniversary               | 5th January   |
| 3       | Swami Vivekanand & Jijamata Birth Anniversary           | 12th January  |
| 4       | Netaji Subhashchandra Bose Birth Anniversary            | 23rd January  |
| 5       | Mahatma Gandhi Death Anniversary                        | 30th January  |
| 6       | Chatrapati Shivaji Maharaj Birth Anniversary            | 19th February |
| 7       | Yashwantrao Chavan Birth Anniversary                    | 12th March    |
| 8       | Shahid Bhagatsingh, Rajguru & Sukhdev Death Anniversary | 23rd March    |
| 9       | Mahatma Jyotiba Phule Birth Anniversary                 | 11th April    |
| 10      | Dr. Babasaheb Ambedkar Birth Anniversary                | 14th April    |
| 11      | Swatanryaveer Sawarkar Birth Anniversary                | 28th May      |
| 12      | Lokmanya Bal Gangadhar Tilak Birth Anniversary          | 23rd July     |
| 13      | Lokshahir Annabhau Sathe Birth Anniversary              | 1st August    |

|    |  |                |
|----|--|----------------|
| 14 | Padmashree S.R. Ranganathan Birth Anniversary  | 12th August    |
| 15 | Dr. Sarvepalli Radhakrishnan Birth Anniversary | 5th September  |
| 16 | Sir M. Vishveshwaraiah Birth Anniversary       | 15th September |
| 17 | Mahatma Gandhi Birth Anniversary               | 2nd October    |
| 18 | Lal Bahadur Shastri Birth Anniversary          | 2nd October    |
| 19 | Swami Ramannad Teerth Birth Anniversary        | 3rd October    |
| 20 | Sardar Vallabhai Patel Birth Anniversary       | 31 October     |
| 21 | Indira Gandhi Death Anniversary                | 31st October   |
| 22 | Shri Guru Nanak Birth Anniversary              | 13th November  |
| 23 | Pandit Jawaharlal Nehru Birth Anniversary      | 14th November  |
| 24 | Shriniwas Ramanujan Birth Anniversary          | 22nd December  |

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

##### **Response:**

Transparency is one of the core values of all operational functions in our Institute.

**On Financial front**, financial budget approved by Governing Council is submitted to the Charity Commissioner's office every year.

Fees is accepted online by SBI Collect facility and by demand drafts, it is a cashless transaction.

All salaries are transferred through bank account. The attendance of all the staff is biometric.

Purchases for the laboratory equipments are initiated at the faculty level and done through tendering process by the purchase committee.

All payments of Institute are done through bank. Accounting system is maintained through MIS and is accessible to the authorities concerned.

Quarterly audits are carried out by the assigned CA. Audited balance sheet is submitted to the Charity Commissioner's Office every year. All the expenses are registered with the Fees Regulatory Authority to

finalize the fees structure.

For admissions students apply online to DTE. Allotments are done by the DTE based on the choice and inter-se merit for 80% of the intake.

Remaining 20% of the intakes which are available for Institutional level admissions are carried out transparently. Candidates already got registered through the CAP are only eligible to apply. After that, candidates willing for admission get registered at Institute. Merit list is prepared based on their preference and relative merit. Admission is confirmed and list is uploaded which is approved by DTE.

**On Academic Front**, the academic session starts with academic calendar which is made known to each and every student and faculty member.

Teaching Plans of respective subjects are prepared and uploaded before commencement of the semester.

The timetable is prepared and made available online before the semester begins .

Attendance along with internal test marks of the students is maintained in MIS and communicated to parents through SMS. Students login are provided by MIS. With the help of which students and parents can access complete updated information regarding timetable, attendance, fees details, faculty details and syllabus completion status from anywhere anytime.

The criteria for internal marks given to the students are also open. Since marking system is known to the students, it is helpful. Submission score cards are generated online automatically in the department.

Student's feedback mechanism is in place. The best teachers are selected on the basis of student's feedback. Self appraisals are maintained by teaching faculty which is part of their performance report.

**Administrative transparency** is maintained with the help of MIS (CASERP).

Leave is applied online and leave record of the faculty is also available in MIS which they can access and check at any time.

State of art surveillance system with IP based cameras are installed in the campus enabling the authorities to access the information online any time anywhere. Suggestion boxes are placed in the campus to invite suggestions and complaints.

MIS also holds details of personal information and digital documents of the faculty and students in D-Wallet.

Staff Committees are appointed by the Director ensuring everybody's participation to carry out various administrative and auxiliary functions.

## 7.2 Best Practices

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

**Response:**

**Two Best Practices implemented**

**Title of Practice: CASERP**

**Aim :** To implement College Administration System(CAS) for digitalization of administration.

**Objectives:** Achieving transparency and paper less administration

**Description:**

**CASERP** is being introduced in the system, which works digitally, and has proved a step towards paperless administration. Because of digital information exchange and no use of paper it helps in environment conservation. CASERP helps in automating and integrating different Institutional functions. It encompasses different modules and provides accurate data to multiple users in a real time. Easy to use and customize, Institution has been transformed a lot with its implementation. **CASERP** is designed to interlink different departments and activities in paperless manner. The software maintains complete records of teachers, students and various other Institutional functions.

Due to the use of CASERP, Institutional functioning becomes completely transparent. Providing access to multiple users through unique login ID. The software is beneficial for Institute management as well as for students, teachers and staff. It encourages transparent and instant communication. It is equipped with several modules like Attendance of students , Marks of internal assessment, Students records, Staff leaves, Messaging to the parents, Students fees record, Staff salary details , D-wallet and Biometric attendance (staff).

This has helped the administrative work to be carried out much faster and efficient way.

**Impact :**

- Efficiency increased with faster reflex of the system.
- Required Real time data is available and accessible to all the stake holders.
- System became more transparent.
- Usage of papers was considerably reduced contributing to environmental protection.

**Title of Practice: Teacher Education**

**Aim:** To carry out continuous education of teachers.

**Objectives:** To update the teachers knowledge.

To upgrade the teaching learning process.

**Description:**

The teacher is the most important element in any educational Institution. The teacher is mainly responsible

for implementation of the educational process at any stage. It is mandatory to invest in up-gradation of the teachers.

Developing teaching skills include acquiring training and practice in different techniques, approaches and strategies for implementing. This helps teachers to plan, impart instruction providing appropriate reinforcement and conduct effective assessment.

Our Institute has the Remote Center a collaborative venture with IIT Bombay where various workshops and FDPs were held conducted by Professors of IIT Bombay and IIT Kharagpur. Various STTP's and workshops under ISTE chapter are also conducted and attended by our teachers. Institute also encourages and sponsors teachers to attend National and International Conferences in India and Abroad. Teachers are sponsored for higher education like M.Tech. and Ph.D. Programs liberally .

Impact :

- Most of the teachers got their qualifications improved during their service tenure here.
- Effectiveness of teaching learning system got improved.
- Many teachers got National & International exposure through conferences by presenting papers.
- We have list of good publications to our credit.

### 7.3 Institutional Distinctiveness

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

**Response:**

**Institutional Distinctiveness**

**Title: Continuous Value Addition to Students and Teachers with distinct personal attention**

**Description:**

Every Institution would like to be recognized for certain type of its attributes which make it 'distinct' or one of its kinds. Such attributes characterize the institution and are reflected in all its activities in focus and practice.

Our Institute contributes 30% of the fees for the students to undertake value added advanced courses, workshops and training programs conducted by external professional agencies.

As per the MOU signed with IGTR, the courses of high end software and modern manufacturing machine training are heavily discounted by IGTR and partially subsidized by the Institute. MOU's are also signed with recruitment agencies like CoCubes.com, Pehlajob.com, AMCAT, for campus placement, 30% of the course fees charged is borne by the Institute.

MOU's are also signed with aptitude and technical training services companies like Texas Instruments,

Innovations Unlimited, Treezec Educational Services, Prolific Systems Ltd., SPJ Systems Ltd., for personality grooming, 30% of the student's fees is borne by the Institute.

We try to give an edge over to the students passing from our Institute through the value added courses.

The teacher themselves have to keep on learning life-long. Elevating potential of the teacher ultimately uplift the students. Our teachers have been sponsored liberally and encouraged to participate in the International Conferences, Symposiums, Technical Exhibition/Fairs and visits to Industries World Over.

This not only takes care of their exposure towards the recent developments in their own subjects but also enhances their vision in general.

Following staff were sponsored for their paper presentation

Dr. Mrs. G S Lathkar and Dr. Mrs. A M Rajurkar, USA .

Prof. M R Banwaskar and Prof. J H Patil, USA .

Dr. S N Dachawar and Prof. M R Banwaskar, Singapore.

Dr. J S Sidhu in Beijing, China.

Dr. S L Kotgire, Singapore.

Prof. P P Kanadkhedkar, USA

Dr. S K Chidrawar ,Portugal and Malaysia

Many other staff members were also financially supported to attend National and International Conferences held in India. Senior staff members were provided laptops and tablets to support their work.

Families of the deceased staff were financially supported by the Institute. Wives of deceased were given employment as per their qualification and their children were financially supported for higher education.

Schemes like Group insurance, Gratuity, EPF are implemented for teaching and non teaching staff. A staff cooperative society takes care for the instant financial help, In case of emergency health issue, Institute immediately helps for the essential treatment, both teaching and non-teaching staff have been benefited.

In the interest of personal career and qualification development of the faculty members they were sponsored for PG and Ph.D.

Sunil Wagh & Mangal Banwaskar did their M.Tech from CEDTI Aurangabad, Shimpale P.M. did his M.Tech from VJTI Mumbai, A M Rajurkar went to IIT, Roorkee, Md. Zameeruddin went to VJTI, Mumbai for their Ph.Ds. and were sponsored by the Institute, recently Girish Deshmukh is pursuing his Ph.D VJTI, Mumbai.

NAAC

## 5. CONCLUSION

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### **Additional Information :**

We are pleased to submit our SSR to NAAC authorities for consideration.

While filling in the SSR, some clarifications are needed to be put forward.

We got affiliated to DBATU, Lonere, from academic year 2017-2018, offering B.Tech./ M.Tech. courses. Only first year of UG and PG courses are affiliated to DBATU, Second, Third and Final year of UG and second year of PG are still affiliated to SRTMU, Nanded offering B.E./M.E courses.

While filling up IIQA we enlisted B.E. as well as B.Tech Programs, hence the number of programs has been increased. We have 5 Departments with 5 UG and 6 PG programs.

While calculating intake the software is taking wrong total of intake because we had to enter 'numerical one' compulsorily in place of 'zero' in the information table. Please consider our intake as 420 UG and 108 PG only.

All the UG and PG programs are with the provision of electives. So while calculating the percentage it is showing lesser instead of 100% in the clause 1.2.2.1.

We are applying for NAAC for the very first time. IQAC was established in Nov 2016 so the relevant section for the annual reports of IQAC i.e. AQAR for last five years could not be submitted in full form. As one academic year will be completed meaningfully only in June 2018.

Many recognitions worth mentioning, the AICTE grants could be mentioned because of the recent 5 years time period under consideration.



## **Concluding Remarks :**

MGMs' College of Engineering is functioning from last 34 years . Over a period of time we have proven systems to take care of curricular aspects with qualified and experienced faculty holding decision making positions in the University.

We continuously work for improvement. An effective teaching learning is evolved taking care of planning, implementation and feedback mechanisms, giving scope for individual's creativity.

Research culture is encouraged through sponsorships for higher education, attending conferences and organizing faculty development programs. Attempts to get the research grants from funding agencies are encouraged.

Development of library as learning resource is paid special attention. We have surpassed even the desirable norms of AICTE, in terms of number of books and titles.

Our functioning is student centric. Students are given support through various committees like Placement Cell , Grievance redressal Cell etc. A well structured organized guidance and counselling system is in place. Their education process is reinforced through value added courses.

The Governance of the Institution is transparent and participative. Delegation of authority at appropriate levels is taken care of. e-Governance is taken up on a growing scale as a strategy.

Optimum utilization of financial and other resources is planned and implemented.

Formation of Internal Quality Assurance Cell (IQAC) has led to structured monitoring of the operational quality of Institutional functioning.

Honesty, Transparency, Continuous improvement and inculcation of human values are attributes of the best practices followed in our Institute.

We are committed for 'Bringing out the Best' in our students....