SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY

MOUNT PLEASANT, 8-2-249 TO 267, ROAD NO. 3, BANJARA HILLS
500034
www.mjcollege.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

MJCET was established in the year 1980 by SUES as a non-profit, un-aided minority institution to cater to the higher educational needs of the society with three undergraduate (BE) programs. The college is approved by AICTE and affiliated to Osmania University. Today, the college offers EIGHT Under Graduate (BE) Courses with a sanctioned intake of 780 and FIVE Post Graduate Courses with an intake of 102 students. The college has established OU Recognized Research Centers in five departments (Civil, CSE, ECE, EED and MECH) wherein 69 research scholars are presently pursuing Ph. D. In its 39 years of existence, MJCET has emerged as one of the premier institutes in the field of professional engineering education. The institute is housed in a sprawling echo-friendly campus in the heart of Hyderabad city.

Five of the BE programs got accredited by NBA in the year 2002. The ECE, MECHANICAL and PRODUCTION Programs were accredited for 5 years and CIVIL ENGINEERING, CSE for 3 years. SAR for the entire eight currently offered UG programs has been submitted to NBA for re-accreditation.

The college has an active Research and Development Cell with a budget outlay of Rs. 15 lakhs to promote research initiatives among the faculty and students aimed at providing viable solutions to pressing problems facing the society. The college has been included under 2(f) and 12(b) by the UGC.

Faculty development in the form of qualification improvement, research, innovation and publications is supported by providing financial as well as administrative support. Grants are provided for professional society membership, paper publication, research projects and participation in conferences/seminars.

Harnessing the students' latent potential through promotion of scientific temper, innovative ideas and entrepreneurial skills i.e. startup culture is a major strength of the college. Over one dozen student professional chapters, Institute Innovation Cell and MJ Hub - incubation Centre, provide ample opportunities to the students to undertake technical projects. The college is a participating institute in the Unnat Bharat Abhyan program of Govt. of India with five adopted villages for bringing transformational change in rural development.

Vision

"To be a part of the universal human quest for development and progress by contributing high caliber, ethical and socially responsible engineers who meet the global challenge of building a modern society in harmony with nature".

MJCET, since its inception, has been focused in imparting quality engineering education and producing responsible engineering graduates who have contributed to the society in different spheres of work viz. technical, administrative, social, environmental etc.

The vision of the institution is very much relevant in the present times when value based engineering and ethics, research, innovation, and entrepreneurship are the hall mark of development and progress. The vision also finds its reflection in the sustainable development goals enunciated by UNDP in which India is one of the signatory countries.

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The alumni of college are widely spread throughout the world and have achieved both professional and academic success after leaving the college with a bachelor's degree. Graduates of MJCET are occupying top positions in reputed corporate as well as governmental organization in India and abroad.

The vision of producing high caliber engineers is achieved by consistently maintaining high academic standards along with state of the art laboratories and computing facilities. The academic results have consistently been above 90% and a large number of students of the college find a place in the top 10 rankers of the Osmania Unviersity.

The students have ample opportunities to acquaint themselves with the current trends in their respective fields through active participation in activities of professional chapters, access to online data bases, out of curriculum training in the center for innovative computing and center for smart learning etc.

Professional and personal ethics are imbibed in the students throughout their course duration by maintaining transparency and high academic and administrative ethics in the campus.

Social responsibility is demonstrated through participation in various activities of professional chapters like EWB India, IEEE etc. and association with various Governmental programs like TASK, PMKVY, Unnat Bharat Abhiyan etc. The students are involved in various development projects for the society, both in urban and rural settings.

Mission

To attain excellence in imparting technical education from the undergraduate to through doctoral levels by adopting coherent and judiciously coordinated curricular and coCurricular programs.

At the time of establishment, MJCET offered three B.E. programs with an intake of 150. Over the period of nearly four decades, the college has moved from three B.E. programs to 8 B.E. programs with an intake of 780, five M.E. programs with an intake of 102 and research centers in five departments with 69 research scholars pursuing Ph. D.

Encouragement and support for coCurricular and extracurricular activities is a major strength of the institution. The students find excellent opportunities to participate in technical, literary, social and sports events through the large number of student professional chapters on the campus.

To foster a partnership with industry and Governmental agencies through collaborative research and consultancy.

The institution has formalized MoUs with industry as well as governmental organizations for collaborative research, consultancy and training.

To nurture and strengthen auxiliary soft skills for overall development and improved employability in a multicultural workspace.

Out of curriculum courses are offered to the students in order to make them employable by developing their technical and soft skills.

To develop scientific temper and spirit of enquiry in order to harness the innovative talents.

To develop a constructive attitude in the students towards the task of nation building and empower them to become future leaders.

Many alumni of the college have assumed leadership roles in corporate and administrative divisions.

To nourish the entrepreneurial instincts of the students and hone their business acumen.

The eCell of the institution is an active body which conducts periodical events to create awareness about entrepreneurship. The eCell has won several national awards in the entrepreneurship week conducted by NEN.

To involve the student and faculty in solving local community problems through economical and sustainable solutions.

The students are involved in various socially relevant projects which are periodically taken up by EWB India, IEEE and UnnatBharatAbhiyan. Successful patenting of the 'Solar powered spinning wheel' is an example of meaningful social contribution by the R&D cell of the institution.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Centrally located in the heart of Hyderabad city, the capital of Telangana, with eco-friendly Green Campus spread over an area of 24 acres.
- Institution offers eight B.E. (780 intake) and five M.E. courses (102 intake)
- Establishment of OU recognized Research Centers in five departments. Allotment of 69 research scholars by Osmania Unvisersity.
- Accreditation of 5 programs by NBA in 2002. SAR for reaccreditation of all B,E, programs has been filed.
- Institution included under sections 2(f) and 12(b) by UGC.
- Institution ranked in 150-200 band by NIRF
- Institution ranked 52nd by Outlook magazine, 47th by Times daily, 42nd by The Week magazine and 28th by India Today magazine. This is national ranking given by the magazines for 2019.
- Participation in all the AICTE and MHRD recommended activities
- Wi-Fi enabled campus. Faculty and students can avail free Wi-fi service by registering with the system adminiistrator of the college.
- ICT enabled class rooms and seminar halls
- Well-equipped laboratory and computational infrastructure facilities with state of the art equipment
- Fully automated Central library with over 62000 volumes and access to online National and International E-Journals through subscription to three data bases, national journals and e-books.
- CCTV monitored campus for security.
- Proactive Management support for institute's academic and co-curricular activities.
- Qualified and experienced faculty with about 25% of them possessing Ph. D. degree.
- Effective placement training and consistently good student placements in reputed companies.
- Facilitation of Faculty and Students activities by the management (Faculty - Study Leave, Sponsoring of Faculty for Workshops, Seminars. Conferences, FDPs, Orientation and Refresher courses, R&D

funding, Students - Industry oriented certification and training programs, professional student chapters, incubation center etc.)

- Top ranks of students in the Osmania University merit list.
- Financial support for research paper publication to Faculty.
- IIT Bombay nodal center for MHRD's MOOCs program under which may FDP and training programs are offered for the faculty and students
- Recognition as NPTEL nodal center with enrollment by students and faculty.
- Good indoor and outdoor Sports Facilities for students and staff.
- Establishment of student professional chapters like IEEE, ACM, IEI, ICI, EWB-INDIA, SAE, CSI etc

Institutional Weakness

- Affiliated college status due to which freedom to adopt our own curriculum is not available and introduction of new courses in areas of emerging technologies is not possible. In such a scenario we have to offer these courses as out of curriculum content which will be optional and cannot be made mandatory.
- Non-availability of adequate Associate professors to meet the norm of 1:2:6. In most of the cases, faculty is offered professor's post on obtaining Ph. D. degree. Hence it is difficult to retain them in the Associate Professor cadre.
- Inadequate Sponsored / Funded research Projects and TEQIP funding. Efforts are being intensified after inclusion of the college in sections 2(f) and 12(b) of UGC
- Weak industrial consultancy work.
- Insufficient MoUs with Industry and research organizations.
- Weak placement trends in core industries of Civil, Mechanical and Electrical engineering sectors.
- Non-availability of visiting and adjunct faculty from industry.

Institutional Opportunity

- Harnessing Alumni base for Institutional growth. The college Alumni are
- Take advantage of Institute's central location to improve interaction with universities, R & D organizations, corporate and Governmental agencies.
- Take advantage of the vast IT hub in the vicinity of the institution for securing internships for the students, inviting the industry professionals for delivering guest lectures and appointing them as guest faculty.
- Promoting more startup registrations through the newly formed incubation center.
- Directing collaborative multi-disciplinary research of R & D cell towards solving challenges faced by community.
- Securing IPR for innovative ideas and products emerging out of R & D projects. A systematic appraoch can be adopted in order to identify proejcts with high potential for patent application with the assistance of IPR consultant.
- Counseling students to appear for competitive examinations like UPSC, GATE, CAT, GMAT, TOEFL, GRE etc.
- Organizing coaching classes for competitive examinations in collaboration with reputed institutes.

Institutional Challenge

- Retaining the national ranking of the institution in competition with autonomous colleges, deemed universities and private universities. At the national level, the college was placed in the 150-200 band by NIRF. All India ranks accorded by national level news magazines for 2019 are: 42nd by The Week, 52nd by The Outlook, 47th by The Time Daily and 28th by India Today.
- Retention of qualified faculty. It is observed that on acquiring Ph. D. degree, the faculty is prone to migrate to other institutions lured by the designation of Professor. At MJCET, the recruitment norms of AICTE are followed strictly. In this situation, efforts are made to retain the faculty by offering special allowance and fast track promotions.
- Overcoming the shortage of Associate Professors since the faculty has opportunities of being designated as professors in other institutions on acquiring Ph. D. degree.
- Maintaining the quality of the incoming student. As more and more institutions join the league of good colleges, student quality is likely to be impacted, not only in MJCET but collectively along with other institutions.
- Providing placement to the graduates in core sector industries
- Maintaining the placement consistency in IT sector jobs. Economic slowdown of the IT sector is a more frequent phenomenon than the core sector.
- Incorporating add-on out of curriculum course modules to comply industry requirements. This is a challenge because of lack of free slots in the academic schedule and availability of qualified faculty in the emerging areas of technology.
- Strengthening networking with universities, research organizations and corporates. With the advent of internship in the curriculum, the competition is likely to intensify further for MoU with industry and corporates.
- Securing research funding from AICTE, DST and similar organizations.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

By virtue of being affiliated to Osmania University, MJCET follows the curriculum and almanac prescribed by the University. The Heads of the Departments are members of respective BOS and along with their counterparts from other affiliated colleges, play a productive role in design and revision of curriculum. In normal course, the curriculum is revised every four years. There are exceptions when the revision is more frequent as in case of introduction of CBCS scheme in 2016 and AICTE model curriculum in 2018, both two years ahead of scheduled revision. MJCET has been successful in getting many of it's recommendations with respect to curriculum revision incorporated in the new schemes. Specific courses/topics which are of interest to MJCET based upon the students' profile are offered as 'out of curriculum' content.

Presently both B.E. and M.E. courses are following CBCS pattern with effect from 2016.

A three tier planning process is followed for achieving micro level planning. The University Almanac is a broad schedule provided by the Dean, Faculty of Engineering, OU. The institutional level events and activities are incorporated in the Almanac leading to the Institutional Academic Calendar. The HODs incorporate Department level activities in order to make it a micro level schedule.

The institution offers value added courses like 'Mobile Application Development', 'Cloud Computing', and

Campus Recruitment Training. The NPTEL local chapter facilitates online certification for the faculty and students enrolled in the courses.

Internship has been introduced as part of the curriculum under the CBCS system. As per the scheme, all the students are required to undergo a one month internship in the summer break after sixth semester. Internship has been retained in the AICTE model curriculum also. Even before introduction of internship as part of curriculum, the college was facilitating interested students to take up internship offers through the Placement Cell.

The role of stakeholders in shaping of the curriculum is given due weightage by seeking feedback from students, teachers, alumni and employers. The feedback from students is taken at various stages of their course. From others stakeholders, feedback is obtained prior to the curriculum revision exercise.

Teaching-learning and Evaluation

The college is offering B.E. courses in eight branches and M.E. courses in five specializations. Being counted amongst the best colleges in Telangana has given an edge to MJCET in the enrolment of students. Except for a few exceptions like B.E. in Production Engineering and M.E. in Digital Systems, the enrolment is 100% every year in all the other courses. The average enrolment percentage over last five years is above 95%.

Being an affiliated college, MJCET has very little freedom in the admission process. The rules and regulations framed by the State Government are followed for admission of Category A and Category B seats. Students from other states are not eligible to get admission under category A, except for those from the bifurcated state of Andhra Pradesh. However, in category B, management can admit students from all over India by following the guidelines of TSCHE. Hence the percentage of students from other states is not very high.

Being a minority institution, 70% of seats are reserved for Muslim students and within this, except merit, no other category of reservation is followed.

The faculty student ratio of 1:16 is better than the AICTE norm of 1:20. In view of the liberal ratio, the college is able to utilize faculty services for undertaking student centric pedagogic initiatives along with mentoring, remedial courses for weak students, supporting bright students in co-curricular activities, career counselling, R & D projects etc.

Major strength of the institution lies in qualified and prolific faculty composed of 25% doctorates and 13% professors with a rich blend of academic and field experience which helps in mentoring the students towards a bright future. Faculty commitment is reflected in the good academic results achieved year after year.

The institution is committed to academic integrity and has implemented required procedures to maintain transparency and fairness at all levels. Mechanism for redressal of all types of grievances is well established and followed.

After adopting the OBE system, COs, POs, PSOs have been defined and their attainment is documented after every semester followed by recommendations for incremental improvement.

Research, Innovations and Extension

Research activity is of prime importance in institutions of higher learning. Applied research and consultancy go hand-in-hand in most of the major technical institutions. MJCET recognized the necessity of building a sustainable research and innovation ecosystem in order to enrich the academic environment. In this connection the college has established university recognized research centers in five departments, R&D cell, Institution Innovation Cell, Incubation Center and Entrepreneurship Cell. The college has made available all the secondary facilities deemed necessary in order to undertake research and publish the findings or patent the innovations.

14 faculty members are recognized as Ph.D. supervisors by Osmania University and 69 research scholars are currently enrolled under them. 6 scholars have already been awarded Ph.D. degree.

Every year, over 25 to 30 R & D proposals are received and the R & D Committee shortlists the projects based upon the presentation made by the applicants in the R&D Committee meeting. In 2019, 15 R&D proposals have been approved with a total funding of about Rs. 9,00,000/-.

Events of Student professional chapters, Mini Project competitions, Hackathons, national level competitions like SAE BAJA, RoboCon, E-Week provide ample opportunities for the students to design, fabricate and demonstrate innovative solutions through working models.

'MJ Hub' established in 2018 as incubation center initiated an awareness drive by organizing 'Ideation contest' and 'critical Design Thinking Workshop'. As of now four startups, namely, MODO ELISION, Trindec technologies, Infinzi Pvt. Ltd. and Ro-biotics are registered with 'MJ Hub'.

Awareness about IPR has been created by conducting seminars and workshops with the result that one of the R&D projects titled 'Solar Powered Spinning Wheel' has been granted patent in 2014. Currently applications have been filed for grant of patents for three other projects.

The faculty and students discharge their social responsibility by undertaking activities in the neighbourhood aimed at improving the living conditions. The student volunteers of IEEE/WIE take up social service activities such as donating books to under privileged schools, and providing relief to natural calamity affected victims whenever needed. The students also host eye testing, blood donation and oral testing camps.

Infrastructure and Learning Resources

The Sultan ul Uloom Education Society has always prioritized provision of adequate infrastructure facilities, in many instances, over and above the AICTE and Osmania University norms. The evidence can be seen in the form of 24 acres campus in the heart of metropolitan Hyderabad city.

The academic infrastructure consisting of classrooms, tutorial rooms, drawing halls, laboratories, workshops, computer centers, seminar halls etc. meet the AICTE norms. The spaciousness of the laboratories creates a distinctive academic ambience which is appreciated by everyone.

All classrooms, seminar halls, computer labs are equipped with ICT facilities. The laboratories have state of the art equipment which is regularly upgraded in order to comply with the current market trends. The computing facilities are also regularly upgraded with latest configurations. About 30% of the budget is utilized for infrastructure augmentation.

The spaciousness of the campus has provided opportunity to have various outdoor sporting facilities like

football, basketball, tennis, volleyball, throw ball, cricket net practice etc. Good facilities are also provided for indoor games including 12 station gym.

The central library is fully automated and has over 62,000 volumes in the lending and reference sections. The library subscribes to 3 online databases which provide access to over 400 foreign journals. About 100 Indian journals are also subscribed. The average annual library expenditure for the last five years is Rs. 29.8 lakhs.

With 859 computers available for student usage, the student-computer ratio is well above the prescribed norms of AICTE. All the faculty members are also provided with independent computers having internet connection. The campus is Wi-Fi enabled. The Internet bandwidth is being upgraded regularly and current speed is 100 Mbps with 1:1 contention ratio.

The institution also has a dedicated center for E-learning with 75-inch Smart Board for innovative content delivery. The student resources portal in a unique feature of the college website with learning resources which can be accessed by the students from anywhere.

The maintenance of computers is under annual maintenance contract. The institution is subscribed to Microsoft education solution through Campus and School Agreement (CASA) for regular updates.

Student Support and Progression

The college has an average of 3500 students on rolls. The students have various options for availing scholarship during their course of study. The most prominent among the scholarships is the Fee Reimbursement Scheme of the Government of Telangana. Apart from this the other options are; BC/SC/ST scholarship of Government of Telangana, national merit scholarship of Government on India, Prime Minister Special Scholarship Scheme and lastly 50% fee concession for children of employees.

Nearly half the students are availing the fee reimbursement and other forms of scholarship from the Government. About 10 to 12 students are found to be benefitting by the 50% freeship offered by the society.

Providing a suitable direction for the student's career is also a responsibility of the institution. In this connection career counselling is offered to students of all years by placement coordinators. Students interested in pursuing higher studies are provided guidance for competitive examinations.

Soft skills and language skills are very important attributes of graduates in ensuring successful campus placements. The campus recruitment training program offers a 40-hours training to the students in the break between 3rd and 4th year. Weak students are offered remedial coaching so that they can compete with others in the placement selection process. Above all, personal counselling through a qualified psychologist & effective grievances redressal mechanism helps the students in overcoming stress.

Sports provide relief from the academic stress and an opportunity for personality development. Students are encouraged to take part in physical activities on or off campus. Few of them become accomplished sports persons and win awards in university level and national level tournaments. In the last five years 44 students have received awards at various sporting events.

The students also have representation in various academic and administrative bodies due to which they are able to convey their perspective on various issues discussed in the meetings. Examples are: executive bodies of

professional chapters, departmental advisory board, IQAC, library committee, anti-ragging committee, placement committee, and grievance redressal cells.

The alumni association meets regularly and strategizes students welfare through sponsorship of activities like CRT, Alumni Meet, graduation day, etc.

Governance, Leadership and Management

Visionary and effective leadership is a prerequisite for the development and progress of an organization. The vision of MJCET is focused on turning out competent engineers who work within the contemporary social and ethical framework with due regard to sustainability.

Effective leadership is provided in the institution through an explicitly defined hierarchy consisting of BoG, GC, Principal, HoD's, etc. There are a host of other committees charged with specific responsibilities like development of library, infrastructure, R&D, placements, etc. The minutes of the meetings are documented and the status of implementation of various resolutions is disseminated through action taken reports.

Strategic development plan is prepared every three years and its implementation is reviewed periodically and the thrust areas are suitably tweaked in order to achieve success. Starting of PG courses, establishment of research centers, development of research ecosystem, faculty development, patents are successes achieved through strategic development plan.

Administrative transparency is ensured by placing organizational structure, rules, regulations and procedures pertaining to recruitment, service, promotions and grievance in public domain. Adoption of e-governance in certain areas of governance has strengthened the administration of the institution.

Staff welfare is ensured through tangible and intangible benefits extended in the form of allowances and special leaves, medical insurance, EPF, ESIC, sponsorship for attending conferences and publishing papers etc. During the last five years about 23% of the faculty have availed financial support for attending conferences and towards membership fees of professional bodies. About 28% of the faculty members have been sponsored for attending FDP's.

A comprehensively designed appraisal system for the faculty and university recommended CR form for non-teaching staff is used for annual appraisal. Under performing faculty is provided opportunities for attending pedagogy development workshops.

Financial audits are conducted every year and the balance sheet is available in public domain. The major source of income is tuition fees along with some contribution from other sources.

NAAC mandated IQAC has been established in August, 2019. Prior to that the PAC and AAC performed IQAC's functions. These committees have devised and implemented all the necessary formats for implementation of OBE.

Institutional Values and Best Practices

Gender sensitivity is an issue which has to be addressed by every organization by taking into account specific

requirements of women faculty and students. Unlike in the past, more and more women are opting for engineering courses due to which their strength in the campus is around 30%-35%. In view of this, facilities for safety, security and counselling have been provided. The campus is extensively covered by electronic surveillance system and patrolled by security guards.

Concern for energy conservation is demonstrated by installing solar street lamps and replacing existing tube lights with LED lamps. Being in metropolitan city, waste management is achieved through the urban local body. Recyclables and scrap are however auctioned from time-to-time.

Environmental savviness is demonstrated by the extensive greenery on the campus, rain water harvesting pits, tree plantation derives, etc.

The campus is differently abled friendly with ramps for all access areas, lifts for vertical mobility and toilet facilities as per standard norms.

Being located in the upmarket area, in the heart of a metropolitan urban agglomerate has its advantages and disadvantages. Amongst the advantages are heightened opportunities for student placements, internships, guest lectures, etc due to proximity with IT corridor. Being located on a major arterial road there is an opportunity to earn revenue by leasing land for installation of unipole hoardings. The main disadvantage of the location is traffic congestion and distractions due to nearby commercial centers.

Engagement with local community is undertaken through the various professional chapter active on the campus. Some notable contributions are installation of solar fans in traffic police booths, upgradation of infrastructure of a Government school and robotic workshops for students of Government schools.

Remembrance of prominent national personalities on the occasion of their birth dates and celebration of national festivals instil a sense of pride about the national achievements. Along with centralized Independence and Republic day celebrations the college also organizes various activities on the occasion of teacher's day, engineer's day, national science day, etc.

The college considers establishment of sustainable research ecosystem, incentivization of faculty professional advancement and bench mark testing amongst the best practices

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY
Address	Mount Pleasant, 8-2-249 to 267, Road No. 3, Banjara Hills
City	Hyderabad
State	Telangana
Pin	500034
Website	www.mjcollege.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal(in-charge)	N Seetharamaiah	040-23280301	9849455423	040-23353428	principal@mjcollege.ac.in
Professor	Ashfaque Jafari	040-23280307	9246292205	040-23280305	ashfaquejafari@mjcollege.ac.in

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	Yes MinorityCertificate.pdf
If Yes, Specify minority status	
Religious	Muslim Minority
Linguistic	
Any Other	

Establishment Details	
Date of establishment of the college	01-12-1980

University to which the college is affiliated/ or which governs the college (if it is a constituent college)		
State	**University name**	**Document**
Telangana	Osmania University	View Document

Details of UGC recognition		
Under Section	**Date**	**View Document**
2f of UGC	08-05-2019	View Document
12B of UGC	08-05-2019	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	**Recognition/Approval details Institution/Department programme**	**Day,Month and year(dd-mm-yyyy)**	**Validity in months**	**Remarks**
AICTE	View Document	29-04-2019	12	

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

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Mount Pleasant, 8-2-249 to 267, Road No. 3, Banjara Hills	Urban	22	27520

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Civil Engineering	48	Intermediate	English	120	120
UG	BE,Computer Science And Engineering	48	Intermediate	English	120	120
UG	BE,Electrical Engineering	48	Intermediate	English	60	59
UG	BE,Electrical Engineering	48	Intermediate	English	60	60
UG	BE,Electronics And Communication Engineering	48	Intermediate	English	120	120
UG	BE,Information Technology	48	Intermediate	English	120	120

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UG	BE,Mechanical Engineering	48	Intermediate	English	120	120
UG	BE,Mechanical Engineering	48	Intermediate	English	60	46
PG	ME,Civil Engineering	24	BE or BTech	English	18	18
PG	Mtech,Computer Science And Engineering	24	BE or BTech	English	24	23
PG	ME,Electrical Engineering	24	BE or BTech	English	18	17
PG	ME,Electronics And Communication Engineering	24	BE or BTech	English	24	13
PG	ME,Mechanical Engineering	24	BE or BTech	English	18	15

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				27				31				133
Recruited	20	7	0	27	19	12	0	31	85	48	0	133
Yet to Recruit				0				0				0

Non-Teaching Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				48
Recruited	45	3	0	48
Yet to Recruit				0

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				114
Recruited	108	6	0	114
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	18	7	0	9	5	0	7	4	0	50
M.Phil.	0	0	0	0	0	0	2	2	0	4
PG	2	0	0	10	7	0	76	42	0	137

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

Part Time Teachers									
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	1	0	0	0	0	0	1	0	0	2
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	3	2	0	5

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

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	642	0	0	0	642
	Female	123	0	0	0	123
	Others	0	0	0	0	0
PG	Male	50	0	0	0	50
	Female	36	0	0	0	36
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years						
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	2	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	28	0	0	0
	Female	22	0	0	0
	Others	0	0	0	0
General	Male	65	35	45	49
	Female	27	14	22	36
	Others	0	0	0	0
Others	Male	608	634	644	633
	Female	125	162	171	153
	Others	0	0	0	0
Total		877	845	882	871

3. Extended Profile

3.1 Program

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

Response: 784

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of programs offered year-wise for last five years

2018-19	2017-18	2016-17	2015-16	2014-15
13	13	13	13	13

3.2 Students

Number of students year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
3391	3515	3567	3487	3349

File Description	Document
Institutional Data in Prescribed Format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
774	774	774	774	774

File Description	Document
Institutional data in prescribed format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
888	880	903	873	908

File Description	Document
Institutional Data in Prescribed Format	View Document

3.3 Teachers

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

2018-19	2017-18	2016-17	2015-16	2014-15
214	222	233	231	231

File Description	Document
Institutional Data in Prescribed Format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
214	233	233	233	231

File Description	Document
Institutional data in prescribed format	View Document

3.4 Institution

Total number of classrooms and seminar halls

Response: 62

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

2018-19	2017-18	2016-17	2015-16	2014-15
683.43	785.37	301.89	907.15	745.22

Number of computers

Response: 859

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:

As an affiliated institution, the curriculum is formulated and provided by the Osmania University through a process of detailed deliberations and discussions in Board of Studies and Faculty meetings. However, the affiliated institutions have the flexibility of teaching content beyond the syllabus in order meet the current demands.

Effective Curriculum Delivery is a function of following parameters:

1. Planning
2. Teaching-Learning Process
3. Assessment Systems
4. Self-Learning Initiatives

Planning:

The three tier planning process is adopted; University Almanac, Institutional Academic Calendar and Departmental Academic Calendar. The University Almanac is a broad statement of academic planning common to all the affiliated colleges. The Institutional Academic Calendar is prepared by the Head of the Institution and reflects the institutional event time lines in addition to the University events. Finally, the Departmental Academic Calendar also reflects the activities and events planned by the Department.

Teaching-Learning Process:

Effective curriculum delivery starts by disseminating the course objectives through coursehandout and lecture schedule. The day-to-day teaching learning process is driven by tutorials, guest lectures, video classes, seminars, workshops, group assignments and projects as-and-when needed apart from the regular lectures. The curriculum delivery is enhanced by the utilization of LCD equipped classrooms and laboratories. Students can also have access to the course related material uploaded by the concerned faculty on the website.

The laboratory experiments provide an opportunity to the students to strengthen theoretical concepts by implementing them practically on latest state-of-the-art equipment. Seminars and viva voce enable the student to articulate the subject understanding and knowledge orally. Students take up keystone projects at the end of the course involving applications of various specializations along with laboratory and field work.

Assessment Systems:

Outcome Based Education (OBE) has been implemented from the year 2015. Assessment of attainment of COs and POs and award of marks/ grades is done through a combination of
direct and indirect assessment tools. A weightage of 40% is accorded to Continuous Internal Evaluation and 60% to Semester End Examination for determining the CO attainment.

The assessment of laboratory sessions is done on a continuous basis through well designed assessment rubric, which lays emphasis on different aspects of Bloom's Taxonomy

A CO-PO mapping matrix is defined and the PO attainment is calculated by combining the CO outcome (direct assessment) with the indirect assessment outcomes.

Self-Learning Initiatives:

Our institute is a recognized local chapter of NPTEL. Students and faculty are encouraged and incentivized to get certified in relevant NPTEL courses. "Student Activity Centers", R & D projects, Innovation and Incubation Cell etc. inculcate self-learning in the students. Apart from R&D projects, students are also encouraged to design and develop prototype models which later can be taken up as start-ups. It also fosters various student chapters such as E-Cell, SAE, EWB, Robotics club, IEEE, CSI, ACM, ICI, Microsoft Student Society, IE(I), etc. The institution also provides avenues for students to demonstrate their co-curricular activities through various annual technical events like Adsophos, Innovatia Panoply, Envisage, etc.

File Description	Document
Link for Additional Information	[View Document](#)

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

Response: 3

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	1	2	0

File Description	Document
Details of the certificate/Diploma programs	[View Document](#)
Any additional information	[View Document](#)

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

Response: 15.03

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

2018-19	2017-18	2016-17	2015-16	2014-15
11	7	7	4	5

File Description	Document
Details of participation of teachers in various bodies	[View Document]()
Any additional information	[View Document]()

1.2 Academic Flexibility

1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years

Response: 8.42

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

Response: 66

File Description	Document
Minutes of relevant Academic Council/BOS meetings.	[View 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: 100

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

Response: 13

File Description	Document
Name of the programs in which CBCS is implemented	[View Document]()
Minutes of relevant Academic Council/BOS meetings.	[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: 0.61

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	19	87	0

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	[View Document](#)
Any additional information	[View Document](#)

1.3 Curriculum Enrichment

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

Response:

The curriculum is designed by the university to include the stated cross cutting issues by including the course indicated here under:

Environment & Sustainability:

A total of nine courses are being offered pertaining to environment and sustainability. While the course of environmental science / environmental studies/Green Building Technology/Non Conventional Energy Sources is offered to all programs of engineering, other specialized courses are offered to Civil, Mechanical and EEE programs: Environment Sciences, Disaster Management, Non Conventional energy sources, Energy Conservation and Management, Waste Heat Recovery and Co Generation, Green Building Technologies, Environmental Engineering, Advanced Environmental Engineering and Environmental Studies.

Fulfilling Social Responsibilities:

Students of MJCET are time and again reminded of their responsibilities to give back to the society. The students hold blood donation camps, organize guest lectures on the importance of donating blood,

importance of hygiene, Swachh Bharat just to name a few.

The AICTE model curriculum has introduced a course called **Introduction to Social Work & Society** for CSE students. The course will enlighten them regarding the various issues in the society that must be addressed with a humanistic approach which would eventually make them more sensitive and selfless. The relevant course are National Service Scheme, Road Safety Engineering, Society Outreach Program.

Human Values and Professional Ethics:

For the overall development of students and to inculcate professional, ethical and human values and to reinforce the importance of human values these courses are incorporated into the curriculum: Yoga Practice, Sports, Intellectual Property Rights and Society Outreach Program.

Gender Sensitization:

Sensitizing today's youth about the gender discrimination practices around us would allow them to be more sensitive, empathetic and responsive towards them. Education is the tool to build perceptions. The engineering students of B.E. III/IV study the mandatory course called "Gender Sensitization". The course not only makes the students aware of the atrocities against women in the society but also helps them understand gender not in terms of 'male'/ 'female' but in the light of gender spectrum. Without being sensitive to the 'other' one cannot fight the stereotypes or the prejudices. The institution believes in creating a space where each individual is treated equally and with respect. The institute holds seminars on gender issues and also encourages students to make presentations or write on such issues so that they become sensitive and rethink the existing stereotypical notions.

File Description	Document
Link for Additional Information	[View Document](#)

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

Response: 9

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

Response: 9

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

1.3.3 Percentage of students undertaking field projects / internships

Response: 17.99

1.3.3.1 Number of students undertaking field projects or internships

Response: 610

File Description	Document
List of students enrolled	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback received from 1) Students, 2)Teachers, 3)Employers, 4)Alumni and 5)Parents for design and review of syllabus-Semester wise/ year-wise
A.Any 4 of the above

B.Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A.Any 4 of the above

File Description	Document
Any additional information	View Document
URL for stakeholder feedback report	View Document

1.4.2 Feedback processes of the institution may be classified as follows:
A. Feedback collected, analysed and action taken and feedback available on website

B. Feedback collected, analysed and action has been taken

C. Feedback collected and analysed

D. Feedback collected

Response: B. Feedback collected, analysed and action has been taken

File Description	Document
Any additional information	View Document
URL for feedback report	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

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

Response: 7.86

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

2018-19	2017-18	2016-17	2015-16	2014-15
295	308	252	249	255

File Description	Document
List of students (other states and countries)	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 67.37

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

2018-19	2017-18	2016-17	2015-16	2014-15
599	591	602	593	586

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

2018-19	2017-18	2016-17	2015-16	2014-15
882	882	882	882	882

File Description	Document
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)

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

Response: 96.46

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

2018-19	2017-18	2016-17	2015-16	2014-15
762	756	748	740	727

File Description	Document
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)

2.2 Catering to Student Diversity

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

Response:

MJCET is implementing the two week induction program for the first year students as proposed by AICTE from 2018 onwards. In the earlier years also, induction programs were organized for the first year students in the first week of their admission into the college. A short one hour assessment test is conducted on the mathematical and analytical abilities of the students which has objective and short type questions. The result of this test helps the college in identifying slow learners with respective to analytical skills. The initial informal interaction and subjective assessment through Benchmark Tests coupled with continuous multimodal evaluation (Internal Exams, Tutorials, Quiz) helps the teachers to identify and differentiate the slow learners and advanced learners in the classroom.

Special programs for advanced learners:

1. Students who perform well are identified on the basis involvement in class room, aptitude test taken during the induction program, bench mark tests, internal assessment tests, university exam etc.
2. Advanced learners are encouraged to be members of various student chapters like Association for Computing Machinery (ACM), Computer Society of India (CSI), Microsoft Student Society (MSS), Indian Concrete Institute (ICI), Robotics Club, E-Cell, Edification Cell, Engineers Without Borders (EWB), Institute of Electrical and Electronics Engineers (IEEE), Orator's Club, Society for Automotive Engineers (SAE), etc. Some among the mebmers also become office bearers.
3. Advanced learners are encouraged to participate in the IoT workshop organized by IEEE student branch of MJCET at regular intervals.
4. Students are encouraged to inculcate research orientation by involving them in Research and

development projects of the institution.

5. Students are motivated to participate in seminars and conferences and publish papers.
6. Various departments of MJCET conduct workshops as and when required to enhance the technical and presentation skills of the students.
7. Advanced learners are encouraged to take up the online courses and the internship programs to enhance their academic and entrepreneur skills.
8. Students with good academic performance are motivated and encouraged to get university ranks.

Special programs for slow learners:

1. There is a provision for student mentoring to monitor the academic performance of the students and interact frequently with the students and their parents to understand and assist students with issues that affect their ability to learn or impede their academic success. Each mentor is assigned with a group of ten students to provide one to one counseling for overall improvement.
2. MJCET English department in collaboration with Orator's club of the college arranges the preliminary spoken English and communication classes for the benefit of students of vernacular medium as well as for those whose proficiency in English is low.
3. The different departments of MJCET conduct remedial classes and provide course notes for students who are slow learners. Through these classes, the basic skills of the students are improved both in Maths and English.
4. A personality development workshop is conducted for the students who have good technical skills but are unable to express their knowledge.

Thus it is ascertained that both advanced and slow learners are mentored suitably to cope up with engineering studies.

File Description	Document
Any additional information	View Document

2.2.2 Student - Full time teacher ratio

Response: 15.85

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	View Document

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem

solving methodologies are used for enhancing learning experiences

Response:

Among various pedagogic methods, student centric methodologies are central to outcome based education system. While some of the courses in the curriculum are based upon student centric methods like experiential and participative learning, a wider exposure is given through several co-curricular activities which enhance their understanding of the concepts. After adopting OBE in 2014, the faculty has integrated several student centric teaching – learning processes into their regular course delivery in order to improve the attainment of course outcomes, program outcomes and programme specific outcomes. Brief descriptions of the various student centric methods in vogue at MJ College are presented below:

1. Internships: Presently, students are required to undergo 4 weeks of internship as a part of the curriculum. Earlier to this also, the practice of sending students to industry for internships was rigorously encouraged. The students acquire first-hand experience of working on a real time problem during their internship. They get an opportunity to experience the applicability of the theoretical concepts in solving field problems.

2. Field Trips/ Industrial visits: In order to strengthen engineering concepts it is essential to expose the students to prototype structures. With this in view, the curriculum of core engineering courses had industrial visit as a in-built mechanism under which students were taken to prominent industries and projects in order to acquaint them with their processes. Even though revised curriculum has done away with industrial visits as a course, the institution is still scheduling field visits in order to enrich the student learning experience.

3. Live Projects: Students are encouraged to take up real time or field projects in association with industry/ R and D organizations for their final year project course as well as mini projects. This helps them enhance their analytical and problem solving skills and makes them industry ready.

4. Service learning projects: Students are encouraged to take up local community projects by identifying the need and requirement of the institutions like schools, slums, NGO's etc. Under this students have successfully executed in Erramanzil government school, Rasoolpura slum area, Kasturba Memorial Trust etc.

5. SAE BAJA, Robocon and similar design & fabrication competitions provide an excellent opportunity of experiential learning during their academic life. The teams have ample opportunity to not only hone their technical skills (theoretical and practical), but also learn team work and leadership skills.

6. R & D projects: Students are provided seed funds/ project funding for undertaking innovative R & D projects involving application of emerging technologies to solve engineering and social problems. The funds are provided to the students yearly, based upon their shortlisting through the constituted R & D committee. The students have one year time to implement their projects. Patent applications are filed for selective innovative projects.

7. Hands on experience: Wherever warranted, the theory courses are augmented with laboratory exercises in order to provide hands on experience in both programming and non-programming laboratories. Technical workshops with hands on sessions in collaboration with industry leaders are offered to the students.

File Description	Document
Any additional information	View Document

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

Response: 58.41

2.3.2.1 Number of teachers using ICT

Response: 125

File Description	Document
List of teachers (using ICT for teaching)	View Document
Any additional information	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

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

Response: 65.21

2.3.3.1 Number of mentors

Response: 52

File Description	Document
Any additional information	View Document

2.3.4 Innovation and creativity in teaching-learning

Response:

Innovation and creativity are fundamental to all academic activities. With the advancement in technology, especially in the field of Information Technology, the college has also progressed from traditional approach to more creative and innovative ways of disseminating knowledge to the students. To help nurture creativity in learning processes, our staff uses several innovative methods. As part of the **crossover learning process**, the students of MJCET are required to take **Industrial visits**, which supports the development of their skills and collaborate with the industry. Students collectively conduct the field study and share their finding back in the class through seminars and participate in group discussions.

From the perspective of **incidental learning**, students are required to take up **mini projects** to develop the new ideas, or methods to implement something new. Since creativity is an active process necessarily involved in innovation, the same concepts learned in the mini projects are taken up further as a complete

project in the final year.

In the traditional classroom, the learning concept is typically confined to a limited time. The teaching staff of this college uses innovative methods of disseminating knowledge to the students through **context based learning** which involves assignment submission, taking part in quizzes, online discussion on the subject topics through the use of **online platforms**. Through this innovative learning method, the students have the flexibility of interacting with the teacher beyond the confinement of classroom time.

Teaching and Learning process involves challenges, refinement and improvement of the subject. The staff of the college uses **innovative teaching** approach to make students understand new concepts and broaden their perspective, and comprehend the subject domain without being constraint to classroom teaching. Most of the traditional presentation material may not be the effective teaching method for all students, since different students have different intellectual ability to grasp the subject, some students may be quick on the other hand some students may be slow learners. To overcome the above learning problem, the staff of MJCET creates **video lectures** in difficult topics which are uploaded on student's resources. For better understanding of the subject topics, **animations** are also incorporated in the video lectures. Apart from traditional classroom lectures, the use of video lectures creates a virtual learning environment and enables students to learn according to their own pace.

When the prospective student joins the institution, apart from regular course work in the first year, every student is required to attend the **video classes** where students are exposed to videos regarding technology evolutions, inspirational stories, etc.

The faculty also encourages the students to explore variety of **online databases** provided in the digital library and subscribed by MJCET to be in touch with the current trends and involve themselves in **Research and Development Activities**.

To be fair in assessing the attainment of course outcomes, the college has formulated the concept of computation of **Blooms Index**, which is a measure of difficulty of the assessment question such as Internal Assessment, Assignments, Quizzes, Tutorial and Case Studies.

File Description	Document
Any additional information	[View Document](#)

2.4 Teacher Profile and Quality

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

Response: 98.88

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

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

Response: 25.87

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

2018-19	2017-18	2016-17	2015-16	2014-15
62	58	62	58	52

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document
Any additional information	View Document

2.4.3 Teaching experience per full time teacher in number of years

Response: 11.42

2.4.3.1 Total experience of full-time teachers

Response: 2444

File Description	Document
Any additional information	View Document

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

Response: 1.77

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	2	0	1	1

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

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

Response: 12.85

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

2018-19	2017-18	2016-17	2015-16	2014-15
28	29	30	30	30

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

2.5 Evaluation Process and Reforms

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

Response:

The reforms in the CIE system as implemented by the institution are discussed below under the heads of Theory Courses, Laboratory Courses, Seminars, and Projects.

Theory Courses:

Affiliating university guidelines are strictly followed with respect to Continuous Internal Evaluation (CIE) system at institution level. Two internal tests are conducted per semester as per university almanac. The schedules of internal assessments are communicated to students and faculty in the beginning of the semester through institute academic calendar which is prepared based on the university academic calendar.

One week before commencement of internal examinations, time table is displayed keeping in view the common subjects across all departments, so that a common question paper is set for mandatory and audit courses. Question paper is set according to Bloom's Taxonomy norms with question CO mapping in accordance to OBC norms.

There are 4 to 6 Course Outcomes (COs) for each subject. The first CIE question paper is prepared in such a way that 2 to 3 COs are attained, Second CIE another 2 to 3 COs are attained. The COs are not only attained by CIE but also by assignments and tutorials. We have introduced a concept of bench mark test for First year students to familiarize them with CIE and identify the strengths and weakness of students. Two long answer questions and two short answer questions are tested in Bench Mark Test.

University follows Choice based credit system (CBCS) and AICTE Model Curriculum. The marks allotted for CIE are 30 and for University semester end examination are 70. Out of 30 marks allotted for CIE 20 are for test and 10 marks are allotted for assignments/tutorials/quizzes. Average marks of two CIE examinations are considered for final submission to university.

The valuation process has to be completed as per the dates mentioned in the academic calendar. The marks are awarded based on the key prepared and scheme of evaluation. Finally the marks awarded are entered in assessment matrix and submitted to HOD and displayed on the respective departmental notice boards.

Students are allowed to go through the valued answer scripts of internal assessment tests and doubts regarding evaluation are cleared. Internal Test performance is intimated to the parents and slow performers are identified and counseled accordingly.

Laboratory courses:

Internal assessment for laboratory courses is done under two different rubrics: Programming laboratory and Non-Programming Laboratory.

In the programming laboratory the experiments conducted by the students are evaluated according to write-up, process development, and coding, compiling, debugging and process validation.

In the Non-Programming the experiments conducted by the students are evaluated according to observations, calculations, results, graphs and discussion of results.

Seminars:

The seminars are conducted for final year students and evaluated according to the seminar assessment rubric which consists of written report, presentation slides and communication skills.

Projects:

The projects of final year students are assessed based upon the project assessment rubric which consists of following parameters: two scheduled reviews, methodology, analysis, design, planning, results, observations and project write-up.

File Description	Document
Any additional information	[View Document](#)

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

Response:

The internal assessment process is communicated to the students by the respective faculty in the first week of the semester as well as during orientation program for the first year students. Further, changes in schedules, patterns, methods if any, are immediately notified to the students through notice boards and also through classroom briefing by the concerned subject teachers. The college notifies evaluation process and related documentation to the students through university syllabus booklets as well as through college website which includes distribution of marks.

The assessment of internal marks is done through quality evaluation process by informing students about the class test schedule at the beginning of each academic year through academic calendar as well as through detailed time table of the internal test will be displayed at the college web site and the department notice board.

The question paper of the internal assessment are set based on the course outcomes which are approved by module coordinator/program coordinator. Syllabus for the internal assessment will be communicated to the students well in advanced.

The question paper of the class test also includes weightages of each question with their course outcomes as per the bloom's index.

Valuation of internal assessment help progressively during the semester and is design to check and report the periodic performance of the student.

The answer script of the class test are evaluated and distributed within one week of the internal exams for verification of marks. It is a practice of the college to show internal examination answer books after evaluation to the students in the class for self-evaluation. Students are free to interact with the teacher to resolve grievances if any, regarding the assessment. The marks are also displayed on the department notice board.

The internal examinations are also conducted for practical courses.

Every academic year consists of two semesters. Each semester is to be of 16 weeks. The first Continuous Internal Examination (CIE I) also known as Class Test I is conducted after 8 weeks of class work whereas the class test II is conducted near the end of the semester. Within the above mentioned 8 weeks of class work, the concerned syllabus is taught to the students. They are then tested on the same material. An

average of both these examinations is calculated to attain the final internal marks of the student. These marks are also vitalized to decide the course of nature for teaching slow students and rectify their performance before the external examination. All question papers are set based on the OBE format. They are mapped with their respective course outcomes that are stated in the beginning of the course. The assignments given to the students involve unaddressed program outcomes. This helps the students attain knowledge beyond the syllabus as these topics are not covered by the exams conducted by the university but are still relevant. These assignments are given within a set timeframe. The students are to complete them within the time given to adhere to the university's timeline.

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

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

Response:

A college level committee is formed comprising of Director, Deans, Principal, Heads of Departments and Associate Heads of Departments to review the conduct of examinations, Evaluation /Assessment of CIE (theory and laboratory exams) and analysis of results.

At department level also a committee is constituted comprising of senior faculty members for smooth conduct of CIE and assessment of theory and laboratory exams.

The answer scripts of all Internal Assessments are shown to the students after evaluation. If they come across any doubts, clarification is given which enables them to fare better in future. The student seminars and project seminars are conducted in presence of all the students of class and hence providing complete transparency in internal assessment.

The scheme of evaluation of end semester exams and CIE are informed to students. The marks allotted to different units are informed to the students. The choice available is also informed.

The university follows a standard protocol for maintaining the confidentiality to ensure fair and unbiased evaluation of the semester end answer scripts. The answer scripts are jumbled and coded for valuation, and decoded later for processing of final results. Evaluation is made under strict confidentiality, at the

University Spot Valuation Centre. Students of Affiliated Colleges are allotted Examination Centre other than the college where they studied to minimize malpractices.

Similarly at college level also strict confidentiality is ensured to conduct fair and unbiased evaluation of CIE answer scripts. After valuation work is completed the marks of test, assignment and tutorial are entered in assessment matrix. Each subject teacher submits the assessment matrix to HOD for consolidating the marks, which is displayed after first and Second CIE, if any grievances is there it can be resolved immediately.

Any grievances related to university question paper like out of syllabus, repeated questions, improper split of marks, marks missed, wrong question number during semester exams are addressed to the Head of Department, after making an analysis by the subject faculties with Department Head, a written note is sent to Controller of examinations of affiliating University.

If student has any grievances related to evaluation of university answer scripts there is provision for Revaluation and obtaining photo copies of answer scripts demand. The student can consult subject faculty and HOD to challenge the valuation.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response:

The institute has a well-defined basic operating procedure to develop the academic teaching plans and it follows a precise academic calendar during the academic year. Every academic year consists of two semesters. Each semester is to be of 16 weeks. In the beginning of the academic session, the students are apprised of academic calendar and notifies them to adhere to it in a time bound manner. The academic calendar is uploaded on college website and displayed on notice boards and at strategic locations. The academic calendar shows the start and end dates of each semester stating various activities to be conducted, the internal evaluation schedule and the tentative schedule of external evaluation. Every teacher follows a strict agenda that is discussed and approved by the head of their respective department. This also allows the teachers and the students to space out their teaching and learning and regular assessment of the same. Each Course and that respective Teacher of it has his /her own pattern of Internal Examination like Practical, Group discussions, Seminar, Quiz, Projects etc. As per their teaching plans, each teacher takes a liberty to schedule their own internal subject's concurrent evaluation. Academic activities are always given priority and all other activities are performed without disturbing the class work. The institute prepares the Academic calendar by understanding the PO's and CO's so that the activities are planned accordingly. Academic Calendar lays down a very strong foundation of the academic delivery. It further propagates the Institute's vision and mission. Preparation of the Academic Calendar begins well before the

commencement of the academic year. The Academic calendar is designed in line with the affiliating Osmania University's Academic calendar and takes into consideration the holidays and vacation. Regular staff meetings are conducted to ensure adherence to the schedule given in the academic calendar. In case of any unusual or unscheduled holiday or repeated non-working of a particular day of a week in the semester, compensatory classes are kept on Saturdays, which are also mentioned in the Academic calendar. The unscheduled holidays are compensated on Second Saturdays.

The institute has built in mechanisms to ensure syllabus completion and conduct of CIE within the time frame. Remedial sessions are conducted on weekdays and on Sundays also. The Academic committee ensures the strict implementation of the Academic Calendar by monitoring activities. Implementing gaps are reviewed periodically. The status of checkpoints and gap identified in monitoring are conveyed to the Director for the necessary implementation.

Only head of the institution can incorporate minor changes in academic calendar which he may deem fit considering the unforeseen circumstances. Due to strict adherence with the academic plan, the institute seldom faces difficulties in completing the curriculum within the planned time frame of the calendar.

File Description	Document
Any additional information	[View Document](#)

2.6 Student Performance and Learning Outcomes

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

Response:

The institute adopted Outcome Based Education (OBE) system from December 2013 for the undergraduate courses in Engineering and Technology. OBE is student-centric pedagogical approach and follows teaching and learning methodology that is outcome oriented. OBE also happens to be an essential requirement of National Board of Accreditation. Under this method, every course has predefined course outcomes (Cos) and the evaluation system is geared towards assessing the attainment of the COs.

The key indicators employed in the implementation of the Outcome Based Education system consist of Course Outcomes, Program Outcomes, and Program Specific Outcomes.

1. **Course Outcomes** (COs) are statements that describe what a student must be able to do at the conclusion of a course. They reflect the significant and essential components of new abilities/skills gained by the student due to the course. The CO statements should be such that the learning can be reliably demonstrated through appropriate assessment tools. Four-to-Six COs are formulated for each course.

2. **Program Specific Outcomes** (PSOs) are discipline-specific outcomes stating what students should be able to attain by the time of their graduation. These are specific to an institute and reflect the program's vision and goals.

3. **Program Outcomes** (POs) comprise of broader statements that describe what students are expected to be able to do by the time of their graduation. Conceptually, attainment of each program outcome is subject to attainment of a specific set of COs and PSOs.

The COs and PSOs are drafted through active participation of the teaching staff and Program Assessment Committee members. Final approval of COs for each course and PSOs for the program is granted by the Department Advisory Board. Bloom's Taxonomy is used to classify the assessment questions based upon the level of complexity like Remembering, Understanding, Applying, etc.

These CO's are modified and reframed in accordance with the changes in curriculum. Every faculty member is well-versed with OBE parameters and works for the attainment of targeted outcomes.

The POs are defined by NBA and the same are adopted by all the programs across the institution.

Description of Mechanism used for dissemination

For effective awareness and extensive communication, different dissemination strategies are adopted to convey standards to learners with the aim that they will understand and factor it into their decision-making. A few of these include:

- They are prominently displayed on department notice boards and laboratories
- Also communicated through events including induction program, graduation program, orientation day program, workshops, seminars and alumni meets.
- During placement training
- In the departmental news-letter
- Included in the internal question paper
- Inside the course handout distributed to students at the beginning of the semester
- A part of the laboratory manuals
- Included in the annual placement brochure, which is provided to all prospective employers
- Mission and vision are displayed at https://alumni.mjcollege.ac.in/page/Vision-and-Mission.dz
- The institute's brochure that contains the vision and mission statements of the institute and the department
- Also displayed on the official college webpage: http://mjcollege.ac.in/cse/index.php

File Description	Document
COs for all courses (exemplars from Glossary)	View Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response:

Course Outcomes, Program Outcomes, and Program Specific Outcomes constitute the backbone of the 'Outcome Based Education' system. While COs are defined for every course, the PSOs are defined for each Program. The POs are specified by the National Board of Accreditation and the same are adopted by all the institutions.

The process for measurement of attainment of the COs, PSOs and POs is formulated at the institution level through a set of assessment tools comprising of direct and indirect methods.

CO Attainment

The attainment of CO is determined based on the outcome of at least two direct assessment tools. Recommendations for preparation of assessment plan are as follows:

1. Every CO should be assessed by at least two tools, apart from CIE.
2. Assignment is a mandatory tool for assessment of every theory course.
3. The second assessment tool could be tutorial, quiz, minute paper etc

Some of the direct assessment tools adopted in the measurement of the attainment level of COs are:

Direct Tools: CIE I and II, Assignment, Tutorial, Quiz, class room problem solving, minute paper, Seminar reports and presentation, Laboratory reports, Project reports, Viva-voce University Examination etc.

An assessment matrix is designed which consists of an assessment plan and data entry sheet displaying the question wise score for every student. The scores are entered throughout the semester by the teacher, as and when an assessment is completed so that the matrix is continuously updated. The assessment matrix is uploaded on the faculty web page of the institution which enables the student to monitor his marks as the semester progresses.

For the University Examinations, CO wise assessment is not possible as the question paper setting and evaluation is done by the University due to which question wise marks of the student are not available. Hence the overall marks scored by the student are considered for the assessment of the CO.

At the end of the semester, the internal marks and the status of CO attainment is obtained from the assessment matrix.

Maximum University Marks	75	
CO attainment threshold (40% of 75)		30
Maximum Internal Assessment marks	25	
CO attainment threshold (60% of 25)		15
Maximum University Marks + Maximum Internal Assessment marks	100	
CO attainment threshold of University marks + Internal Assessment marks	45	

Appropriate thresholds are also set for non theory courses in a similar manner.

PO and PSO Attainment

The assessment tools for the Programme Outcomes (POs) are categorized into two types:

    1.Direct Assessment Tools: CO attainment levels

2.Indirect Assessment Tools: Course end survey, Exit Survey, Alumni Survey and Employer Survey

The institution has designed separate PO assessment frameworks for theory courses, laboratory courses, seminar and project. For the evaluation of the POs and PSOs a weightage of 80% is given to the average CO attainment score and the indirect assessment tools of course end survey, exit survey, alumni survey and employer survey are each given 5% weightage.

PO or PSO score = 0.8 * Average Direct score + 0.2* average indirect score

File Description	Document
Any additional information	[View Document](#)

2.6.3 Average pass percentage of Students

Response: 89.09

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

Response: 784

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

Response: 880

File Description	Document
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 3.18

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

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

Response: 8.9

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

2018-19	2017-18	2016-17	2015-16	2014-15
3.5	0	0	0	5.4

File Description	Document
List of project and grant details	[View Document](#)
e-copies of the grant award letters for research projects sponsored by non-government	[View Document](#)
Any additional information	[View Document](#)

3.1.2 Percentage of teachers recognised as research guides at present

Response: 6.54

3.1.2.1 Number of teachers recognised as research guides

Response: 14

File Description	Document
Any additional information	[View Document](#)

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

Response: 0.04

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

Response: 2

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

Response: 226

File Description	Document
Supporting document from Funding Agency	[View Document](#)
Any additional information	[View Document](#)
Funding agency website URL	[View Document](#)

3.2 Innovation Ecosystem

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

Response:

MJCET has taken several initiatives for the creation of necessary ecosystem to promote innovation and creativity among the students and faculty. The following set-ups have been established in order to nurture and encourage creativity and innovativeness:

1. R & D Cell
2. Institutional Innovation Council
3. Student Professional Chapters / Clubs

Research and Development cell

The R & D cell was established in the year 2008 with the aim of promoting research activities among the students and faculty. In the beginning, the R & D provided 'seed-fund' for research proposals in order to assist the investigators to undertake preliminary work for the purpose of formulating detailed research proposals for submission to funding agencies.

Objectives of the R & D Cell:

1. To motivate faculty and students to undertake Research and Development activities
2. To encourage interdisciplinary R & D projects
3. To serve as a medium for three way interaction between the Institute, R & D Organizations and Industry.
4. To assist the faculty, Ph. D. scholars and students to apply for funding under various schemes.
5. To encourage publication of technical papers in National / International refereed Journals and Conferences based on the research carried by the faculty and students
6. To register under Intellectual Property Rights like Patents & copyright the outcome of R & D work carried out by the faculty and students of the Institution
7. To facilitate signing of MOU with industries and R & D Organizations for research and product development

In tune with the stated objectives, the R&D Cell has been guiding and facilitating the faculty, under-graduate students, graduate students and researcher scholars with financial grants and state of the art facilities including laboratory and computational facilities, library resources and access to major databases.

Every year, over 25 to 30 R & D proposals are received and the R & D Committee shortlists the projects based upon the presentation made by the applicants in the R & D Committee meeting. An encouraging aspect of this R & D activity is the increasing number of multi-disciplinary project proposals from the undergraduate students.

Incubation Cell:

MJCET has established 'MJ Hub' in November 2018 aimed at shaping the innovation ecosystem in the campus and to encourage 'startup' culture. An 'Ideation contest' and 'critical Design Thinking Workshop' were organized to create awareness about the newly established center. Four startups, namely, MODO ELISION, Trindec technologies, Infinzi Pvt. Ltd. and Ro-biotics were recently registered by the students.

Student Professional Chapters / Clubs:

MJCET actively promotes student profession chapters and clubs under which events like Hackathons, Mini project Competitions and technical events like ADSOPHOS are organised every year which require students to design and fabricate innovative solutions.

Outcome

Patent tilted 'Solar Powered Spinning Wheel' has been granted in 2014. Patent titled 'Automotive vehicle wheel with three dimensional printed alloys' was applied in the year 2016 and Patent titled 'Mileage measurement and fuel forecast system with fuel tracking provision and a method thereof' was applied in the year 2018

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

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

Response: 1

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

2018-19	2017-18	2016-17	2015-16	2014-15
1	0	0	0	0

File Description	Document
Report of the event	[View Document](#)
List of workshops/seminars during the last 5 years	[View Document](#)

3.3 Research Publications and Awards

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

Response: Yes

File Description	Document
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)

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

Response: Yes

File Description	Document
e- copies of the letters of awards	[View Document](#)
Any additional information	[View Document](#)

3.3.3 Number of Ph.D.s awarded per teacher during the last five years

Response: 0.43

3.3.3.1 How many Ph.Ds awarded within last five years

Response: 6

3.3.3.2 Number of teachers recognized as guides during the last five years

Response: 14

File Description	Document
URL to the research page on HEI web site	[View Document](#)
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	[View Document](#)
Any additional information	[View Document](#)

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

Response: 0.25

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

2018-19	2017-18	2016-17	2015-16	2014-15
31	11	11	3	1

File Description	Document
List of research papers by title, author, department, name and year of publication	[View Document](#)

3.3.5 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years

Response: 0.29

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

2018-19	2017-18	2016-17	2015-16	2014-15
14	16	19	9	8

File Description	Document
List books and chapters in edited volumes / books published	[View Document](#)

3.4 Extension Activities

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

Response:

The institute's vision envisages developing ethical and socially responsible engineers who contribute to society and work in harmony with nature. Conforming to the vision, the institute encourages various bodies and clubs like IEEE student chapters, Robotics club, EWB(I), IE(I), and E-Cell to undertake activities in the neighbourhood aimed at improving their living.

EWB(I) Student chapter takes up projects like clean-and-green campus, deliver community service by conducting awareness drives to educate people on literacy, etc. In one instance, students stressed the need for a foot over-bridge near the college main gate and initiated its establishment. The student volunteers of IEEE/WIE take up social service activities such as donating to under privileged schools, and providing relief to natural calamity affected victims whenever needed. The students also host eye testing, blood donation and oral testing camps.

IEEE Student Chapters: There are a number of student chapters which encourage the students to learn and contribute to the society through awareness programs, projects etc. For instance IEEE external academia conducted technical program on *Internet of Things* and *Virtual Reality* for spreading knowledge and inculcating technical skills among school students. In view of the frequent occurrence of tragic electrical accidents, IEEE/PES conducted an awareness program on various electrical hazards for students of different schools.

EWB (Engineers without Borders): works with a *mission to accelerate sustainable rural development, assist in protecting the country's natural resource base and promote responsible use of technology.* Donations to Nachiketa Tapovan Orphanage, Need based surveys conducted at ZPHS, Govt High Schools, Brugula village and research based solutions are provided. The foot operated economical tap was fabricated to conserve 40% water. Fuel Briquitte and Chulla from waste was designed and fabricated for rural cooking. Solar Fans with capacitors were assembled and fixed on the Traffic Police Booths at various junctions.

IE(I) Institute of Engineers–India: Is a multidisciplinary body with students from civil, electrical and instrumentation engineering. Awareness program are conducted for school and pre university students against the social evils like "Awareness Programme on Viral Spread of Drugs and Online Gaming".

Robotics Centre: the Robotics Centre, Under ANVESHANA, provides opportunities to share knowledge and hone their skills at various state and national competitions. It has been instrumental in setting up Robotics Clubs at various other colleges. This is another step towards developing a constructive attitude in the students towards the task of nation-building and empowering them to become future leaders.

Unnat Bharat Abhiyan: **under the aegis of UBA the institution has id**entified 5 villages. A student team identifies problems persisting in the villages and proposes solutions pertaining to the fields including but not limited to sanitation & cleanliness, education, skill development, agriculture, physical infrastructure, social and institutional infrastructure. The team promotes alternative and eco-friendly methods of farming like organic farming, alternative energy sources like biogas in the villages.

Adsophos- Annual technical festival: Students are invited from nearby schools and colleges to attend the

festival where projects are displayed in Ghulam Ahmed Hall.

File Description	Document
Any additional information	View Document

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

Response: 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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	1	0	1

File Description	Document
Number of awards for extension activities in last 5 years	View Document
e-copy of the award letters	View Document

3.4.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

Response: 38

3.4.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
10	13	2	4	9

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach programs conducted with industry,community etc for the last five years	View Document

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: 36.54

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

2018-19	2017-18	2016-17	2015-16	2014-15
2300	612	225	2370	777

File Description	Document
Report of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document

3.5 Collaboration

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

Response: 265

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

2018-19	2017-18	2016-17	2015-16	2014-15
203	3	48	4	7

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

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

Response: 14

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

2018-19	2017-18	2016-17	2015-16	2014-15
4	3	3	3	1

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

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

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

Response:

MuffakhamJah College of Engineering and Technology has adequate facilities meeting all the specified requirements of approval authority norms. The MJCET campus presents a picturesque view, where the dream of engineering complementing environment is realized. Spread over 24 acres, every inch of it celebrates the diversity of engineering fields and convergence of engineering visions. It is home to five instructional and administrative buildings, which provide the entire range of infrastructure required for effective deliverance of engineering education.

Classrooms:

The institute has 46 classrooms, 12 tutorial rooms and 2 drawing halls available for its students which meets the requirements of the statutory body. All the classrooms and tutorial rooms are well furnished, spacious, well illuminated and well ventilated. All are equipped with adequate furniture, writing boards, fans, lights, power backup facility, and LAN/Wi-Fi connectivity. Each classroom has an LCD projector and screen which are frequently utilized by the students and faculty members for their Lecture presentations.

Laboratory and Workshop Facilities:

Adequate laboratory and workshop facilities exist for carrying out all the experiments as per the curriculum. All the equipments in laboratories are well maintained to conduct experiments. Advanced equipment for R&D work is also procured as and when required. Sufficient safety measures have been incorporated and are displayed at strategic locations in the laboratories.

The minimum requirement of laboratories and workshop as per statutory body is 57 and 3 respectively while the institute has 80 laboratories and 3 workshops which are over and above the minimum requirements.

Seminar Hall & Auditorium:

The college has one seminar hall which meets the AICTE norms. Over and above this the college also has one auditorium and one conference hall to conduct seminars, conferences, guest lectures, workshops, etc. for students and faculty members. All seminar halls are equipped with LCD projectors, whiteboards, and public address systems with internet facility. The Auditorium built on 10,000 sq. ft. has a capacity of 1200 seats and is used for organizing events like graduation days, technical festivals, etc.

Computing Facilities:

Against the requirement of 571 computer as per AICTE norms (UG 520 + PG 51), the college has 859 computers exclusively for the use of students. Each department has its own computing laboratories fully

equipped with the latest computer systems, printers, scanners and relevant license software and internet connectivity. The college has also established specialized facilities like Center for Innovative Computing, Center for Smart Learning, Graphics Lab, Digital Library etc. All the Faculties are provided with desktops having internet connectivity for their personal studies and work.

Library Facilities:

The Central Library with 17448 titles and 62761 volumes and subscription to 3 databases offers an excellent environment for academic pursuits. Printed journals and magazines are kept in the reference section for reading with the photocopying facility. Computer and internet facility is available in the library which is utilized by students and staff for browsing e-journals and online databases. Each department has its own departmental library with limited number of books for faculty members to utilize this facility for research projects.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response:

The institution utilizes lot of its resources to provide an environment to its students where they are encouraged to indulge in sports and extra-curricular activities. It believes in the all-round development of its students, mostly involving in extracurricular and sports activities. For such activities, there are adequate facilities provided in the college campus. The Department of Physical Education is putting its best efforts in imbibing knowledge and imparting sporting skills to students and staff in various sports and games. The institution has a Physical Director for coaching the students and staff members to practice and participate in various state and National level competitions bringing laurels for the institution. The following out-door and indoor-games facilities are provided on campus for physical education.

The college campus has Indoor games facilities like: Table tennis, shuttle, badminton, caroms, chess, and gymnasium facility which includes mini gym of 12 stations, multi gym of 4 stations, exercising cycle of three different sizes, two bench presses, parallel bar and complete weight lifting and training sets. Indoor game Arena is built up on an area of 600 sq. mts.This area coversgames like carom, chess, badminton, gymnasium hall and parallel bar. A separate room of built up area of around 80 sq.mts. is provided for playing and practicing table tennis.

The outdoor games facilities on the campus includes: Football ground of 3016 sq. mts. area, two volley ball courts of 648sq. mts., basketball court with sophisticated flood lights on 464 sq. mts., two cricket nets of 564 sq. mts., lawn tennis court of 195.62 sq. mts. and throw ball court of 222 sq. mts.To encourage the students, the facilities are made available even beyond college hours. Our students have participated in various games and sports organized by NITs, BITS-Pilani, JNTU, Osmania University, and other colleges.

The students have excelled and won prizes in various intra-college, inter college and university competitions. The Sports club of the college has successfully induced the sporting culture among the students and staff, which is evident through the laurels achieved by them.

Our students also participate in the various technical and educational events organized by the college. During Adsophos – The Annual Technical Festival of the college, students plan and organize the technical and cultural events in which students from various colleges take part to hone their knowledge and skills. Our students also display their innovative projects in the Tech – Expo of the same event organized in Ghulam Ahmed Auditorium. Students also participate in annual events of the institution like Orientation day, Annual day, Engineers day, Science day, commencement day, graduation day, etc.and prizes are awarded to the students with excellence in sports, academics and co-curricular activities.

The college has established policies and procedures to create and continuously enhance the infrastructural facilities. Some of the recent initiatives taken in line with this are establishment of student activity centres, conference hall, meeting rooms, etc.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 62

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	[View Document](#)
any additional information	[View Document](#)
Link for additional information which is optional	[View Document](#)

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

Response: 27.77

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

2018-19	2017-18	2016-17	2015-16	2014-15
191	170	175	111	142

File Description	Document
Details of budget allocation, excluding salary during the last five years	[View Document](#)
Audited utilization statements	[View Document](#)
Any additional information	[View Document](#)

4.2 Library as a Learning Resource

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

Response:

SMNA CENTRAL LIBRARY
The college central library is situated on second floor of Block - 5 and has a plinth area of 1,070 Sq. m. (11,520 Sq. f.). There is an extended technical section of the library on third floor. The central library consists of the following sections: Circulation section, Textbooks section, Reference books Section, Reading section, Journals & Periodicals section, News Papers, OPAC, Digital Library, Technical section, and Photo copying section.

LIBRARY TIMINGS
All working days   8.55 A.M. TO 7.00 P.M.
Weekends   9.30 A.M. TO 1.00 P.M.

LIBRARY INTIGRATED SOFTWARE
Name of Library software   INFLIBNET SOUL SOFTWARE
Nature of automation (fully or partially)   Fully automated
Version   SOUL 2.0
Year of Automation   2001

The library uses the Software for Online University Library (SOUL 2.0) developed by INFLIBNET under the initiative of Ministry of HRD Govt. of India. The following are the major features and functionalities of the soul 2.0 software:
1. Acquisition
2. Cataloguing
3. Circulation
4. Serial control
5. OPAC
6. Administration
7. Bar-coding

CIRCULATION SECTION

The circulation section of the central library is automated with soul 2.0 software and bar-coding facility for circulation of books.

TEXTBOOK SECTION / OPEN ACCESS BOOKS STACK

The plinth area of textbooks/stack section is of nearly 400 Sq. M. this section is having 60,000+ books, these books are arranged in accordance of Dewey Decimal Classification System which is very simple and world recognized. This section is open access to users; users themselves have to go through the racks for their needs. Staff will assist them any time for the help.

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

4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resources for library enrichment

Response:

Rare books or special collection in a library represents books of enduring value both for intellectual content and historical significance. The primary focus of the SMAN central library Rare Books Section is to make available books authored by prominent scientists, investigators and engineers in various fields of engineering and technology as well as basic sciences, manuscripts and special reports. In the dedicated reading space the library holds 471 titles and over 1000 volumes.

The B. E. and M. E/M. Tech. project reports / Thesis submitted by the graduating students are also available in the library in hard copy as well as CD format.

Design and Data Handbooks published by McGraw Hill, CRC press, Industrial Press, Shroff Publication, Wiley India, Cambride University etc. in areas of Civil Engineering, Mechanical Engineering, Electrical and Electronic Engineering and Computer science serve to meet the requirements of regular students, faculty and research scholars looking for first hand authentic deistn data and procedures. Similary, the rare books colleciton al

so includes encyclopredias published by prominent Indian and Foreign publishers dealing with general engineering topics as well as specialized areas including product encyclopedias.

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

4.2.3 Does the institution have the following:

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

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: B. Any 3 of the above

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

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

Response: 12.74

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

2018-19	2017-18	2016-17	2015-16	2014-15
10.2	10.7	15.5	13.3	14.0

27-12-2019 09:40:27

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	[View Document](#)
Audited statements of accounts	[View Document](#)
Any additional information	[View Document](#)

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

Response: No

4.2.6 Percentage per day usage of library by teachers and students

Response: 9.49

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

Response: 342

File Description	Document
Any additional information	[View Document](#)

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

Latest IT resources are provided to the Faculty as well as Students to enable curriculum delivery and knowledge enhancement. In this regard, every member of the teaching staff is provided with individual computer system with Internet connection.

Currently, the MJCET campus is completely Wi-Fi enabled, which has been enabled in stages. All Laboratories, Staff Rooms,Class Rooms and Library are Wi-Fi enabled thereby making it possible to access the internet resources from anywhere in the campus.

The Internet bandwidth is being upgraded regularly. Starting from 1.5 Mbps,the present bandwidth consists of Optical Fiber Internet leased line of 100 Mbps bandwidth and Non-Leased Internet connection with 1 Gbps bandwidth.

The college website is updated on a daily basis by a dedicated website administrator. The Student Resources portal is a unique feature of the college website in which Faculty uploads learning resources which can be accessed by the students from anywhere.

To cater to the newly introduced Graphics Lab subject a computer center was established with 63 computers with latest Intel Core i3 processor, three motorized screens, overhead LCD projectors and

printers.

'Center for Innovative Computing' (CIC) Labwas established in 2015 for conducting seminars and hands-on sessions of Workshops. It isalso used for conducting IIT – MHRD funded workshops. Facilities at CIC include 60 All-in-one Computers (Intel i5 core, 8GB RAM, 1 TB Hard Disk), Overhead Epson Projector with Motorized Screen, Bosch Audio System.

The institution has a policy for periodical upgradation of the computer systems. Under this policy, 85 computer systems were replaced in 2019 with i3 8th Generation, 8GB RAM, 1TB HDD, 20-inch LED Monitors. Similarly 150 PIV computers were replaced with Core i3 7th generation computers in 2018. LCD projectors are replaced periodically. In 2019, two 75-Inch Smart Boards were procured for utilizing innovative content delivery in class room/laboratory.

The computer laboratory LAN hardware such as switches, routers and cables are periodically replaced with the latest versions. Older switches have been replaced with intelligent Layer-2 and Layer-3 switches and routers. Old CAT-5 LAN cables are replaced with latest CAT-6 cables.

The operating system of all the computer systems on the MJCET campus is governed by Microsoft Campus Licensing Agreement. According to this agreement, all the computer systems on MJCET campus are automatically upgraded to the latest operating system released by Microsoft. Currently, Windows 10 is deployed. Various Software Tools like Rational Rose UML Modeling tool, CAD/ CAM Software, Cadence Software are periodically updated with the latest version whenever it becomes available.

A mentoring portal has been developed for setting long terms goals of the students and monitoring their progress. This portal is periodically updated by incorporating enhanced features from time to time.

TheAssessment Matrix developed in Microsoft Excel for assessment of Course outcomes is regularly improved to reflect the changing needs of Faculty and Students. Currently, version 12 of Assessment Matrix is under use.

File Description	Document
Any additional information	[View Document](#)

4.3.2 Student - Computer ratio

Response: 3.95

File Description	Document
Any additional information	[View Document](#)

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)
>=50 MBPS

35-50 MBPS

20-35 MBPS

5-20 MBPS

Response: >=50 MBPS

File Description	Document
Any additional information	[View Document](#)

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

Response: No

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	[View Document](#)

4.4 Maintenance of Campus Infrastructure

4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

Response: 45.72

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)

2018-19	2017-18	2016-17	2015-16	2014-15
260	290	290	275	203

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	[View Document](#)
Audited statements of accounts.	[View Document](#)
Any additional information	[View Document](#)

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic

and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

The College has well established procedure of maintaining and utilizing academic and support facilities.
Physical Facilities:
Classrooms, Tutorial rooms and Seminar halls: Before commencement of each semester, Head of the department and class incharges inspect the class rooms and tutorial rooms to checkout the adequacy of furniture, working of projectors, tube lights, fans, etc. and make sure all the facilities are available in good condition for the students. The college is having in-house maintenance team and Annual Maintenance Contract with agencies to carry out repairs and maintenance work.
A separate class room is allotted exclusively for every class, whereas tutorial rooms and seminar halls are shared by two or more departments as per the requirements. Time-table incharges of the departments prepare times tables in consultation with each other and display them on the notice board. All the classrooms are provided with LCD projectors and students and faculty members can utilize them for their presentations.
Laboratory and Workshop Facilities:Adequate laboratory facilities exist for carrying out all the experiments as per curriculum.Advanced equipment for R & D work is also procured as and when required. Each Laboratory is managed and maintained by a faculty incharge, laboratory assistant / Programmer / Technician / computer operator etc. Annual proposals for purchase of new equipments, repair and maintenance of available equipments are prepared by the concerned lab incharges and submitted to Head of the Department. The Head of the institution after receiving the proposals from all the Head of the departments calls the Purchase Order Committee meeting for their approval and purchases / repairs and maintenance.After purchase and installation, the details of new purchases are recorded in the stock registers of respective Labs. Testing & calibration of equipment and devices are also performed on regular basis to ensure the working and accuracy of available equipments in the laboratories. Equipment rendered obsolete on account of change in syllabus, process or technology is phased out either by replacing it with new equipment or transferring it to other institutes who can utilize these equipments productively. The assets thus transferred or disposed off are written off from the respective stock registers. Stock verification process is carried out every three years in the department to physically verify the availability of all equipment.
While many of the laboratories are exclusively used by the department, some of the laboratories and workshops are shared with two or more departments for their service courses. Meeting of time-table incharges of the all departments is held before the commencement of each semester so as to finalize the schedule of service courses for both theory and labs and the Time Tables of each department are prepared accordingly for best utilization of resources.
Computers:Each department has its own computing laboratories fully equipped with latest computer systems, printers, scanners, relevant license softwares and internet connectivity for the benefit of the students. All the faculty members are provided with Personal Computer with internet connectivity. Computing, Wi-Fi and Internet facilities are checked routinely by the concerned incharges and any repairs and maintenance will be carried out as and when required through AMC service provider. Upgradation of hardware and software is done periodically.
Most of the labs are utilized exclusive by the students of the department for their Lab activities and project works. Whole campus is Wi-Fi enabledand staff members and students use the facility for accessing the internet.
Academic Facilities:
Library:The Central Librarywith over 17000 titles and 62000 volumes and subscription to 4 data bases offers an excellent environment for academic pursuits. The Central Library Committee comprising of a

senior faculty member from each department recommends the purchase of new editions, number of volumes based on strength of students and inputs from course coordinators. In the annual meeting of Central Library Committee, Librarian presents these recommendations and finalizes the purchases.

Printed journals and magazines are kept in the reference section where the students can read and take photocopies. Computer and internet facility is also available in the library which is utilizedby the students and staff for browsing e- journals and online data bases.Each department has its own departmental library with limited number of titles and volumes for the benefit of faculty members who utilizes this facility for their research work.

Computer Centers:

Apart from the computer labs for conducting scheduled classes as per curriculum, the college has established computer enters for general use of students from all disciplines. Some of these centers are; 'Center for Innovative Computing', Center for Smart Learning', Digital Library etc.

Support Facilities:

Sports Complex:Central Sports Facility for in-door and out-door games is available in the campus for student and the staff of the college. The central Sports Complex of the campus is having In-door game facilities for Table Tennis, Carroms, Chess, Gym equipements, etc. and Playground for out-door games Like - Cricket, Football, Tennis, Volleyball, etc. Physical Department headed by the Physical Director is responsible for purchase and maintenance of sports equipments, and organizing Inter and Intra college events annually.

Student and staff members of the college utilizes this facility to participate in the inter college games and sport events held annually and also to represent the college in inter university or inter-state sports competition.

Institution provides various other services / facilities for the students and staff members which are as follows:

• Reverse Osmosis Water Treatment Plant and water coolers for clean and portable drinking water.
• Fire fighting and Fire Alarm System for fire safety.
• Banking and ATM facility for financial transactions.
• Stationary facility for purchase of stationary items.
• Vegetarian and Non-Vegetarian Canteens for food.
• Auditorium for conducting events.
• Dispensary for any medical emergency and first aid.
• Security personals for campus security and safety.
• Mosque for performing prayers.
• Pest control for keeping away rodents.
• Campus Plumber & electrician for repairs and maintenance work.
• 320 KVA and 62.5 KVA generators for uninterrupted power supply.
• Full time Network administrator for addressing internet and networking problems.
• Student Activity Center to carryout out any student activities.

File Description	Document
Any additional information	[View Document](#)

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 50.41

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

2018-19	2017-18	2016-17	2015-16	2014-15
1785	1803	1706	1691	1735

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	[View Document](#)
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	[View Document](#)
Any additional information	[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: 0.26

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

2018-19	2017-18	2016-17	2015-16	2014-15
11	12	11	4	7

File Description	Document
Any additional information	[View Document](#)

5.1.3 Number of capability enhancement and development schemes –

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

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

Response: B. Any 6 of the above

File Description	Document
Details of capability enhancement and development schemes	[View Document](#)
Any additional information	[View Document](#)
Link to Institutional website	[View Document](#)

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

Response: 92.49

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

2018-19	2017-18	2016-17	2015-16	2014-15
3038	3160	3178	3357	3268

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	[View Document](#)
Any additional information	[View Document](#)

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

Response: 2.66

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

2018-19	2017-18	2016-17	2015-16	2014-15
44	18	41	162	190

File Description	Document
Details of the students benifitted by VET	
Any additional information	

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

Response: Yes

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	
Details of student grievances including sexual harassment and ragging cases	
Any additional information	

5.2 Student Progression

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

Response: 30.55

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

2018-19	2017-18	2016-17	2015-16	2014-15
238	207	313	301	323

27-12-2019 09:40:34

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

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

Response: 3.7

5.2.2.1 Number of outgoing students progressing to higher education

Response: 33

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

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

Response: 86.25

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

2018-19	2017-18	2016-17	2015-16	2014-15
90	117	138	174	69

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

2018-19	2017-18	2016-17	2015-16	2014-15
110	134	152	193	85

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

5.3 Student Participation and Activities

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: 1

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	0	0	0

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	View Document
e-copies of award letters and certificates	View Document

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

Response:

The institution elicits the support of its students along with other stake holders in the functioning of various academic and administrative bodies. The student members of these bodies participate in brain storming sessions and formal meetings called for formulating strategies for the overall curricular, co-curricular and extra-curricular development of the students.
Student council
There is no formal student council in the college. However, there are several other non-elected bodies which involve student's participation in academic and social activities. The Student Edification Cell is one such body which is involved in the academic and social development of the student community. Members of the cell are actively involved in co-curricular talks, anti-ragging programs, and various other addiction and gender discrimination awareness activities.

Academic and Administrative Bodies

Involvement of students in some of the academic and administrative bodies is presented below.

Department Advisory Board: The Advisory board of each departmentcomprises of representatives of all stake holders like society office bearers, principal, head of the department, senior staff members, parents, alumni personnel from industry, and students. It meets biannually to discuss the state of art areas that can be included in the syllabi. The outcome is proposed to the university Board of studies for the syllabus revision.

IQAC:The IQAC has 4-6 student nominees on the committee in order to have representation from all stakeholders. The student members get an opportunity to provide first hand inputs on their needs during academic discussionspertaining to quality improvement.

Library Committee: The library committee is formed by the group of two students from every section, along with the department faculty in-charge, the heads of respective departments, Principal and the Librarian. It meets once in a semester to discuss about the improvements to be made in the library facilities and recommends books, journals to be procured. A list of such requirement is prepared and forwarded for approval to authority concerned.

Anti-raging committee: The institution has an active anti-ragging committee which consists of faculty, staff and four students. The committee prevents curbs and reports ragging issues to the authorities if necessary. The committee designs and makes available anti-ragging awareness related material. It works in coordination with a number of squads that are formed for on campus and off campus vigilance, during on-duty and off duty timings. The squad can conduct enquiry into any incident. They ensure display of posters at various places like notice boards, corridors, library, canteen, sports lounge, bus stop and any other prominent spaces.

Women's Grievance and redressal Cell: The Cell has members from staff, and onegirl student memberfrom each department. It meets monthly to discuss the issues brought forth and ensure that all the problems of women are effectively redressed in the college.

Grievance and redressal committee for SC /ST: The committee meets once in a month to address the issues and it is authorised to take all possible measures in consultation with the head of the institution so that all the SC/ST student and staff related problems are aptly addressed.

File Description	Document
Any additional information	[View Document](#)

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

Response: 6

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

2018-19	2017-18	2016-17	2015-16	2014-15
5	5	6	7	7

File Description	Document
Report of the event	[View Document](#)
Number of sports and cultural activities / competitions organised per year	[View Document](#)
Any additional information	[View Document](#)

5.4 Alumni Engagement

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

Response:

The MJCET Alumni Association (MJCETAA) was established in year 2001 vide Ref No: 4036/2001 with the office of the Registrar of Societies, Hyderabad. The Alumni Association provides a common platform for the interface between Alumni and Current students and faculty of the college. The Aims and Objectives of Alumni Association are as follows.

- To help materialize the vision of the college.
- To reach out to all the alumni of MJCET and bring them under the folds of MJCET Alumni Association.
- To extend welfare measures to the deserving students by the way of scholarships based on merits.
- To organize talk on career opportunities by eminent personalities in their respective fields.
- To facilitate the Alumni and staff who have excelled in performance in their areas of operations.

The activities of the MJCET Alumni Association organizes two big events every year.

AlumniMeet

MJCET Alumni Association organizes Alumni Meet every year on sunday in the last week of December every year. This event acts as a platform for the Alumni to gather at the college and meet their friends and faculty. Further the alumni who have completed 25 years as professional engineering termed as the "Silver Jubilee Batch" is felicitated and outstanding Alumni are awarded with the Distinguished Alumni Award.

Graduation Day

The second big event is " PC Distribution ceremony titled " Graduation Day". This event is held every year in July / August to distribute the provisional certificates to the outgoing batch of graduates. Distinguished personalities of the ranks of Vice Chancellors of University, Industry Leaders are invited to deliver the Graduation Day address and distribute Gold medals to top rankers of each department.

Campus Recruitment Training(CRT) Program

Amongst several need based programmers, the Alumni Association has initiated the Campus Recruitment Training(CRT) which is administered by the college. This program is designed to cater to the needs of 4th-year students of Engineering, who seek a job through college Placement Cell. Under this program, various seminars and lectures are arranged to improve the analytical and communication skills of the students.

Seminars and Workshops.

The alumni come forward and conduct regular seminars for students on niche topics in the latest fields. The most latest programs are listed below.

- Lecture on "Academic Research and Development" by Mr. Mohammed Rahman, Research Scholar at Qatar University and Alumni of 2012 batch, held on 17 August 2019. The seminar was attended by 50 students faculty pursuing research.
- Lecture on "Cube Satellites" by Mr. Ashar Farhaan, Alumni of 1984 batch, held on 8 August 2019. The seminar was attended by 80 students of Third and Final year,ECED.
- Lecture on "Photonics - A Key enabling Technology of Future" by Prof. Zahed Mustafa Khan, Alumni of 2001 batch on 7 August 2019. The seminar was attended by 120 students.
- A Two day workshop on "Fundamentals of C Programming" by Mr. Akhil, Alumni of 2007 batch on 29 and 30 June 2019. The workshop was attended by about 350 final year students of all branches of engineering.

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

5.4.2 Alumni contribution during the last five years(INR in Lakhs)
? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

Response: <1 Lakh

File Description	Document
Any additional information	[View Document](#)
Alumni association audited statements	[View Document](#)

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

Response: 10

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

2018-19	2017-18	2016-17	2015-16	2014-15
2	2	2	2	2

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

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

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

Response:

The vision of the institution is in tune with the current global perspectives which place a high premium on sustainability, environment, innovation, ethics and social responsibility.

The mission of the institution lays down the guidelines for the realization of the vision by providing the framework in areas of pedagogy, R & D, collaboration, innovation, entrepreneurship, soft skills and national building.

Governance

The administrative philosophy of the institution is geared towards the attainment of vision through the well formulated mission statements. The institution was established in 1980 by a group of accomplished individuals who constituted themselves into a Society. The founding members represented varied facets of intelligentsia and established a rich and transparent administrative culture from the inception. It is under their stewardship that the institution has ingrained an academically proactive, administratively transparent and professionally supportive governance model.

BOG

The Board of Governors of Sultan-ul-Uloom Education Society is the highest decision making body having full powers of management of the society and its subordinate and affiliated institutions. It meets once a month if not oftener and takes up the recommendations of the governing councils during the meetings.

Governing Council:

The Governing Council is the highest decision making body at the college level. One of the Society members is designated as the Chairman of the Governing Council and the Hon. Secretary is ex-officio member. This results in a seamless decision making process as the Hon. Secretary can steer the recommendations of the GC in the BoG. The Governing Council meetings are convened by the Principal to discuss and adopt all academic, administrative and financial initiatives of the college.

Principal and HODs: The local leadership at the college level is provided by Advisor cum director, Principal, Deans, Registrar and the HODs, who are responsible for the day to day functioning of the academic and administrative aspects of the institution in accordance to the GC directions. They are assisted in discharging their duties by Associate Heads, Laboratory Incharges and a string of committees and coordinators.

The leadership strives to achieve the institutional and departmental vision through an open and interactive environment. Frequent meetings with the HODs help in dissemination of the various new initiatives to the

lowest hierarchy of the staff. There is also a formal and informal interaction with the students in order to integrate their aspirations with the institutional vision. New infrastructure and equipment, renovation of laboratories, training of staff etc. have been facilitated for successful implementation of new systems in the college.

The institution follows a well-defined perspective plan for development and modernization of the existing facilities, expansion of the academic and sports infrastructure like laboratories, library resources, class rooms, seminar halls and indoor/outdoor sporting facilities. The IT infrastructure receives special attention due to the need to upgrade it more frequently.

Faculty opinions and participation is given due weightage by their participation in various committees like R & D cell, Staff Selection Committee,Purchase Committee, LAN Committee, various committees for Grievance Redressal, Anti-Ragging Committee,Library Committee, Disciplinary Action Committee, Placement Committee etc.

File Description	Document
Any additional information	[View Document](#)

6.1.2 The institution practices decentralization and participative management

Response:

Decentralization and participative management is ingrained in the administrative functioning of the institution. Participative management is an open form of management where the employees are actively involved in the conceptualization as well as implementation of various academic and administrative responsibilities. Hence, this form of management represents collective decision making which involves the Director, Heads of the Departments, Coordinators, Laboratory incharges and section incharges. The faculty and staff are treated as facilitators who deal directly with the students and meet their needs.

Decentralization in functioning is emphasized by the administrative structure consisting of Boards of the Governors at the helm of the hierarchy, followed by the Governing Council at the college level. In most of the instances a bottom-up approach of administration is followed wherein the inputs come from the lower levels of hierarchy through departmental level faculty and staff meetings held periodically to discuss matters related to academics, administration and infrastructure augmentation. The inputs from the Departmental meetings is placed by the respective heads in the HODs meetings which are also held periodically. The decisions taken in HODs meeting are put up in the Governing Council which recommends them for approval of the BOG.

Case Study – Mentoring System

The on-line mentoring system developed by the CSE faculty of the institution is a good example of decentralization and participative management. The traditional student counselling and mentoring system was in force till 2016-2017. This was a comprehensive system under which a series of forms were used by the counsellors for course counselling, career counselling and general counselling. Even though the system was effective without loose ends, it involved a good amount of paper work and file movement. In this

system, the faculty/counsellors felt stressed due to the documentation work, which in some instances was more taxing than the actual counselling itself. Apart from this, access to case history and data retrieval for individual student was time consuming and burdensome. Moreover, the institution began preferring a paperless system in order to avoid unnecessary usage of paper in order to conserve resources.

By the end of 2017, faculty members began advocating introduction of online counselling system in order to improve effectiveness and reduce paper work. The inputs of the faculty were placed in the HODs meeting by the Heads of the Departments. After taking into consideration all the aspects, a collective decision was taken to develop a mentoring portal in order to make the process online and transparent.

The on-line mentoring portal was launched in 2017. The database consists of student details like name, contact number, e-mail address, parents contact number, mentor-student mapping etc. The attendance data and CIE data is downloaded to the portal periodically. The mentors are alerted about the shortage of attendance and low scores in CIE through SMS. Using the portal the mentors inform the parents and fix up a meeting if required. Details of all the activities and updates on parent-mentor meeting are logged in the portal and can be retrieved as and when required.

File Description	Document
Any additional information	[View Document](#)

6.2 Strategy Development and Deployment

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

Response:

Strategic Development Plan is drawn in light of the institutional vision and mission. Major thrust areas and actions are identified in the strategic development plans drawn every three years since 2007. The institution has successfully achieved most of the targets over the past decade with the result that the college has most recently been ranked in the 151-200 band by NIRF, 62nd rank by Outlook magazine, 47th rank by Time Daily, 42nd rank by The Week and 28th rank by India Today.

The strategic development plans have consistently identified introduction of PG and doctoral courses, R & D, and faculty development and innovation as the key elements for attainment of excellence. The untiring efforts of the past decade have borne fruit and the institution has achieved excellent outcome in this area.

1. PG courses and Research Centers

The institution started its first PG programme in CAD/CAM with an intake of 18 in 2004. After formulation of the first strategic development plan, the following courses have been added:

- M.E./M.Tech. Courses – Structural Engineering in Civil Engineering in 2007, Digital Systems in ECE in 2009, CSE in 2010 and Power Electronic Systems in Electrical Engineering in 2013.

The total intake in the PG courses is 102.

- Ph. D. Courses - University approved Research centers have been established in Mechanical and ECE (2013) and Civil, CSE and Electrical Engineering (2017) leading to award of Ph. D. degree to the research scholars.

Currently 60 research scholars are on rolls of the research centers.

2. Research and Development

R & D MJCET cell was established in 2007 to encourage the research and innovation spirit among the faculty and student fraternity. The budget for seed funding was Rs. 1 Lakh in 2007, which has been presently enhanced to Rs. 15 Lakhs. Research projects of undergraduate and graduate students and faculty are sanctioned funds every years based upon the evaluation of the proposal by the R & D committee.

3. Faculty Development

Faculty members are encouraged to become members of professional bodies, publish papers in Journals and Seminars / Conference. Financial grant is provided by the institution in order to encourage the faculty. Along with this, the faculty members are encouraged to improve qualification by acquiring Ph. D. degree. Various incentives, both financial and service oriented, are available to the faculty under the strategic development plan. The outcome is as follows:

- From a total of 15 faculty members with Ph. D. degree in 2009, the number has increased to 55 in 2019. Another 86 faculty members are pursuing their Ph. D. courses in various universities.
- About 40 research papers are published in UGD approved journals every year, apart form 100+ papers in conferences and seminars.

4. Innovation, Patents and Start ups

The institution has established an innovative and incubation cell. The innovative ideas are being filed for patent grant and already one patent has been granted for the institution and is in process of publishing another 3 patents. Three startups have also been registered.

File Description	Document
Any additional information	[View Document](#)
Strategic Plan and deployment documents on the website	[View Document](#)

6.2.2 Organizational structure of the institution including governing body, administrative setup, and

functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

Response:

The Institution was established by the Sultan ul Uloom Education Society in the year 1980. The Society has its Governing Body headed by the Chairman and supported by the Vice Chairman, Honorary Secretary, Joint Secretary, Treasurer &members. The Board of Governors of SUES is constituted as per the provisions of Society act, Government of Telangana.The Governing council is the highest decision making body at the college level. It deliberates on various academic and administrative issues and makes recommendations to the Board of Governors.The Advisor cum Director of the institution is the convenor of the Governing council. The college administration is decentralized by delegating power to the Advisor cum Director, Principal, Deans, Heads of the Departments, and Head of the Sections. They are authorized to make all academic decisions as per the rules and regulations stipulated by the Osmania University and the Society. Interdepartmental issues are discussed in the Heads of the Departments meetings prior to arriving at a decision. Any changes in the governing rules and regulations are communicated to all the Heads of the Departments through notices. The Heads of the Departments in turn communicate them to their respective teaching and non-teaching staff.

Functions of various bodies

Board of Governors, Sultan ul Uloom Education Society
The Board of Governors is the highest decision making body of the Society. It has full powers of management of the society and its subordinate and affiliate institutions and is responsible for the day to day business.
The following are the functions and the responsibilities of the Board of Governors SUES:
1.   To guide and monitor the development and growth of the institution in all areas of functioning.
2.   The day to day affairs of the society shall be managed by the Board of Governors and it shall meet once a month if not oftener.

Governing Council

The Governing council is the highest decision making body at the college level.
The following are the functions and the responsibilities of the Governing Council:
1.   Deliberate on various academic and administrative issues and make recommendations to the Board of Governors.
2.   To make the policies and procedures on academic matters.

Recruitment and Promotion Rules:

The Institution follows the rules, procedures and policies in recruitment and promotion as stipulated by AICTE, Osmania University and UGC from time to time.

Service Rules, Leave Rules, Conduct Rules:
The service rules, leave rules, conduct rules, classification control and appeal rules are based on Sultan ul Uloom Education society with effective from 9th September 2002.

Grievance Redressal Committee:

The Grievance Redressal committee is intended to undertake the processes of attending to the grievances put forward by the students and staff. It focuses on setting proper facilitation procedures for settling the issues in a cordial atmosphere. The committee shall take into consideration all the redressal criteria and rules and regulations of the AICTE, UGC and Osmania University.

The Women Grievance and Redressal cellis responsible to sort out the issues/Complaints raised by women staff and Girls students.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

6.2.3 Implementation of e-governance in areas of operation

1. **Planning and Development**
2. **Administration**
3. **Finance and Accounts**
4. **Student Admission and Support**
5. **Examination**

A. All 5 of the above

B. Any 4 of the above

C. Any 3 of the above

D. Any 2 of the above

Response: C. Any 3 of the above

File Description	Document
Screen shots of user interfaces	[View Document](#)
ERP Document	[View Document](#)
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	[View Document](#)
Any additional information	[View Document](#)

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

implementation of their resolutions

Response:

This institution constituted several committees for implementing quality initiatives and transparent administration for the benefit of the students, faculty and staff at various levels. The following is the list of committees:

- Internal Quality Assurance Cell
- Student's welfare Committee
- Students & Staff Discipline Committee
- Anti-Ragging Committee
- Grievance& Redressal Committee for SC &ST Students/Staff
- Women Grievance& Redressal Committee
- Placements Committee
- NPTEL - Project Implementation Committee
- Incubation, Start Up &Entrepreneurship Committee
- Patents & External R&D Project Committee
- R&D Committee
- LAN Committee
- Purchase Committee
- House Keeping Contract Renewal Committee

Every Committee constituted has its own terms of reference and responsibilities. The convener of the committee schedules the meeting of the members at regular intervals and/or as per the need. The framed agendas or any other matter concerned with the terms of the committees are taken up by the members and after due discussions, the decisions are documentedin the form of minutes of the meeting. In the due course of time or in the subsequentmeeting, if necessary, the action taken report, is also submittedfor approval.

Successful implementation of LAN Committee Recommendations:

The members of the LAN Committee consists of Advisor-Cum-Director, Principal, Deans (Academics & Administration/Students Affairs, CSE Head of the Department as the convener of the committee, and the concerned faculty and staff of the institution.

The main objective of the LAN committee is to look after the IT infrastructure facilities of the institution. The requirements of purchase/upgradation of computers hardware and software's, networking components, networking issues, renewal and future demand of Internet bandwidth, establishment of smart classrooms as identified.

The above mentioned issues are taken up in the meeting held on 12th January, 2019. One of the agenda was the renewal and up-gradation of internet leased line which was taken up. The Head CSED informed the members of the committee that currently 70 Mbps leased line provided by M/s Pioneer E-Labs Limited is in use. And the contract has to be renewed. Furthermore the issue of enhancing the bandwidth was also taken up. The members of the committee decided the need to enhance the existing bandwidth from 70Mbps to 100Mbps based on the technical and commercial aspects. After negotiations, the existing service provided M/sPioneer E-Labs Limited agreed to enhance the bandwidth at the same price. The members of the committee also observed that the services of existing service provider are satisfactory and the contract

can be renewed from December-2018 to December-2019.

Based on the recommendations, the convener of the LAN committee raises the requisition for renewal and upgradation of Internet Leased Line, which was forwarded to the Advisor-cum-Director for initiating the renewal and payment procedure. Subsequently the requisition was sanctioned by the management of the institution and the purchase order wasfinalized and payment to the vendor released. These communications and interactions are duly recorded in the Minutes of the Meeting held on 12th January, 2019as part of the implementation of the resolutions and recommendations made by the members of the LAN Committee.

File Description	Document
Any additional information	[View Document](#)

6.3 Faculty Empowerment Strategies

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

Response:

The college authorities understand that the well being of employees is important for effective functioning of the institute and hence provide welfare measures for them accordingly.

List of existing welfare measures provided by the college for its teaching and non-teaching staff is as follows:

- College Management provides Gratuity to the eligible teaching and non-teaching staff members.
- Employees Provident Fund contribution is provided to the eligible staff members of the college.
- Group Medical Insurance is provided by the college to teaching and non-teaching staff members
- Medical Reimbursement to NTS with less than Rs.21,000/- gross pay under ESIC
- Comfortable seating for faculty
- All the teaching and non-teaching staff members are eligible to avail the Casual Leave of 12 days, Earned leave of 6 days, Medical leave of 10 days, Half Pay leave and Extra-ordinary leave, and 6 weeks of vacation in a year.
- Paid Maternity leave is provided for female staff members of the college subject to the two children norm and 120 days period.
- College also provides On-duty facility to the faculty members for attending workshops, conferences, seminars, FDP's, or other official events, meetings, programs, etc.
- Fee concession of 50% is given to one child of staff members for education purpose in constituent institutions.
- Festival advance of Rs.8000/ 5000 is extended to NTS.
- Financial support of Rs. 3000/- per year is provided for the teaching staff members for attending Workshops & Faculty Development Programs.
- NPTEL Examination fee reimbursement for teaching staff
- Faculty is encouraged to publish papers in UGC recognized journals and financial assistance of Rs.15000/- per year is provided to each faculty member by the college for publications.

- College also encourages consultancy projects. Around 60 to 80% of the consultancy work amount received is given to the faculty members involved in consultancy projects.
- College also provides financial assistance to faculty members for Membership registration in Professional bodies.
- Faculty members are encouraged to pursue doctoral studies. College provides paid leaves for writing Ph.D. entrance, attending seminars, colloquiums, etc. and more upon college approves and sanction in house R & D funds for their research activities. Special allowance of Rs. 5000/- added to their salaries after completing their Ph.D. degree.
- Each faculty member of the college is provided with Personal Computer with internet connectivity. Whole campus is Wi-Fi enabled and all the staff members utilize this facility.
- Library facilities like referring books & magazines, book borrowing, internet browsing for e-journals, etc. is available for all staff members.
- Central Sports Facility for in-door and out-door games, physical fitness center is also available in the campus for the staff and the students of the college.
- Reverse Osmosis Water Treatment Plant and water coolers facility is provided for clean and portable drinking water.
- Both Vegetarian and Non-Vegetarian Canteens are available in campus for those who want to have food in college hours.
- Dispensary for any medical emergency and first aid is available. Staff members can visit the dispensary for first aid, doctor's consultation or any medical help. Basic medicines are provided free of cost.

File Description	Document
Any additional information	[View Document](#)

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

Response: 20.42

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

2018-19	2017-18	2016-17	2015-16	2014-15
35	38	58	52	49

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc during the last five years	View Document
Any additional information	View Document

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

Response: 2.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
3	2	2	0	4

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document
Any additional information	View Document

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

Response: 21.05

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

2018-19	2017-18	2016-17	2015-16	2014-15
55	32	67	32	52

File Description	Document
Details of teachers attending professional development programs during the last five years	[View Document](#)
Any additional information	[View Document](#)

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

Response:

Teaching Staff

Annual Faculty Performance Appraisal system is in place whose purpose is to evaluate the performance of the Faculty over one calendar year, measured against well-defined parameters. The appraisal score is used to identify strengths and weaknesses of the employees. Based on this, faculty members are provided opportunities to improve their weak areas.

The comprehensive appraisal system consists of the following two components: Evaluation by the Head of the Department and Head of the Institution, and Self-Appraisal.

The Head of the Department grades the performance of the faculty member based on parameters like commitment of the faculty member towards students and Department, andsincerity of the faculty member in discharging of the academic and administrative duties. The maximum score awarded by the HOD is 10.

The Head of the Institution grades the performance of the faculty member viz. a viz. the commitment of the faculty member towards the institution and his / her contribution towards the overall Institutional development. The maximum score awarded by Head of the Institution is 5.

Self-Appraisal by the Faculty member is a major component of the Annual Faculty Performance Appraisal system. The faculty member is required to submit a comprehensive self-appraisal based on well-defined guidelines, along with documentary proof supporting the self-appraisal. The Head of the Department certifies the correctness of the information furnished by the faculty member and a committee chaired by the Dean (Academics) ratifies the same. The self-appraisal parameters are divided into three categories: Mandatory Parameters with maximum score of 100, Essential Parameters with maximum score of 100 and Desirable Parameters maximum score of 150. Thus, Self-Appraisal carries a maximum score of 350.

Mandatory Parameters represent the bare minimum compliance expected from a faculty member serving an educational institution. These parameters concentrate mostly on the academic activities of the faculty and to some extent on the administrative responsibilities. Some of the Mandatory Parameters are: Teaching workload, Discharge of examination duties, Results, Student Feed Back and other Administrative responsibilities.

Essential Parameters are necessary for a successful discharge of professional obligations. These parameters concentrate mostly on the academic extension activities and co-curricular and extracurricular activities of the faculty. Some of the Essential Parameters are: Contribution towards teaching learning process, Research Publications in Journals and Books, Participation in Conference / Seminar / Workshop / Refresher Course / Orientation Programs, Participation in Professional activities.

The Desirable Parameters indicate attainment of excellence and concentrate mostly on the additional academic and professional activities of the faculty. Some of the Desirable Parameters are: Sponsored and Non-Sponsored Research and Consultancy Work, Conduct of Seminars and Workshops, Research Guidance at M.E. / Ph. D. level, Awards and Recognitions.

Non-Teaching Staff

Annual performance appraisal of non-teaching staff is based on the confidential report submitted by the Laboratory Incharge / Head of the Department / Administrative Officer. The format specified by Osmania University is followed by the institution.

File Description	Document
Any additional information	[View Document](#)

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

The management of the Institution appoints auditors to conduct both internal & external audit on a regular basis. The terms of reference including the scope and coverage of the audit are decided by the management of the institution. As a statutory requirement the internal audit is conducted during the period from December – January every year and the external audit is conducted during the period from June-August every year.

The auditing team begins the process by verifying the vouchers of all the transactions which includes but not limited to entries of students fee, salary statements, purchase invoices, verification of ledgers, bank statement, cash book and general register.

Stock registers maintained by various departments consist of entries of consumables and non-consumables along with their receipts and invoices with the delivery challan. The general register includes settlement of advances which are made to the head of the departments for conducting various programs and events.

The auditing team, after thorough auditing of the above records, financial statement viz. trail balance, income and expenditure account, balance sheet, schedules, receipts and payments are prepared and submits a report to the management on their findings.

The management of the Institution also appoints external Auditors for verification and scrutiny of all the items of income & expenditure and the auditors prepare the final balance sheet for the audited statement of Accounts and submit their report at the end of every financial year.

The observations / objections if any, raised in the report submitted to the management by the auditors are communicated back to the accounts department of the institution for clarifications and/or rectification.

File Description	Document
Any additional information	[View Document](#)

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

Response: 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	[View Document](#)

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

Response:

The institution is supported and funded by the Sultan ul uloom Education Society of which MJCET is one of the constituent college. The said society is a non-profit educational trust and receives no grants or donations and MJCET institution is a self-financed.

The main source of funding to the institution is through student's tuition fees which are collected yearly. Some of the students are entitled for fee reimbursement form the Government of Telangana; fees for these students are released by the government after verifying the eligibility of the student.

The student tuition fees are fixed by the AFRC Telangana State Fee Regulatory Committee. The institute furnishes all the required documents related to the expenditure incurred and projections for the next three years to the State Fee Regulatory Committee which fixes the tuition fee of the Institution. The projections for the next three years also include projected salaries of the staff along with the increments and Dearness Allowances, etc.

Another source of income is through registration fees received from the sale for admission forms to the prospective students.

The other sources of funds for the society that manages this institution are through interest received from Fixed Deposits held in nationalized banks.

The staff of the institution also engage themselves with consultancy work carried out in collaboration with the industry and Government organizations. The revenue generated through the consultancy work is shared by the staff and the institute.

Further the Sultan-ul-Uloom Education Society which manages this institution also earns income by way

of rent from allowing use of premises for ATM & banking services, advertisement agency and also through leasing the space to canteen, food stalls, stores, Unipole hoardings and sale of scrap.

The institution prepares the annual budget to ensure optimal utilization of financial resources, taking estimated inputs from various department/section heads. Based on their requirements, funds are allocated for the up-gradation of infrastructure and IT resources. The yearly budget includes recurring and non-recurring expenditures, which is approved by the Board of Governors of the institution on the recommendation of the Governing Council. Budget utilization is periodically reviewed for efficient utilization.

File Description	Document
Any additional information	[View Document](#)

6.5 Internal Quality Assurance System

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

Response:

MJCET adopted 'Outcome Based Education' system for its undergraduate programs in the year 2014. A 'Program Assessment Committee (PAC)' was established for each of the eight programs in the institution. The PAC functions as a quality assurance body at the program level and the inputs are leveraged for quality improvement at the institutional level by IQAC. Two significant quality assurance strategies implemented in MJCET are as follows:

I. Hierarchical academic system

The hierarchical academic system is a means of achieving guided participatory management of the faculty in order to improve the teaching-learning process. The system consists of the following hierarchical structure

- Programme Coordinator
- Module Coordinator
- Course Advisor
- Course Coordinator

Every faculty member offering a course is a course coordinator who is responsible for planning, delivering and assessing the outcomes of the courses offered by him/her during the semester/year.

Course advisor is designated wherever the same course is offered by different course coordinators to different sections/classes in order to ensure uniformity of course coverage and assessment. The senior most faculty member teaching the course is designated as course advisor. Course Advisor advise the other course coordinators regarding relative importance of the units, problems to be solved and pedagogy to be adopted for effective delivery of the course material.

Module Coordinator is responsible for supervision of the course coordinators and course advisors offering courses under the module. Each module encompasses all the courses relevant to that specialization and has one module coordinator.

The Program Coordinator oversees the planning, course delivery and attainment of course outcomes. The PC chairs the PAC meeting which takes stock of the attainment of COs and POs and makes recommendations for improvements.

II. Pedagogical Initiatives

On the assessment side, the IQAC recommended that each CO should be assessed by using the following direct tools:

1. CIE – I or CIE-2
2. Assignment
3. Any one of the following tools depending upon the suitability to a course

- **Tutorials:** As per the OU curriculum Tutorial is a part of the scheme of instructions in a few courses. However, the Department has introduced tutorial in at least half of the courses in every semester & are made to solve the problems during the tutorial class and submit them at the end of the session.
- **Quiz:** In courses without tutorial sessions, quiz is used as an assessment tool. The course coordinator administers the quiz to the students in regular class.
- **Classroom Problem Solving:** In some courses the course coordinator prefers to use classroom problem solving as an assessment tool. The students solve the given problem in the class and the course coordinator assesses the performance in the class itself.
- **Group Assignment:** In certain courses which involve system or component design, group assignment may be preferred. In this the students are divided into groups of 4-5 and each group is given a separate question or same question with varying data
- **Seminar:** In some courses students may be required to present seminars on selected topics which will be used for CO assessment.

File Description	Document
Any additional information	[View Document](#)

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

Response:

The program assessment committee and academic audit cell reviews the academic performance of the program after every semester with reference to quality assurance of teaching learning processes. The attainment of COs and POs is also reviewed during the audit. The following two examples demonstrate the role of PAC/AAC/IQAC in reforming the academic structures:

Introduction of Blooms Index for ensuring quality of direct assessment tools:

Different assessment tools are employed for assessing the learning levels of the students. The assessment process itself can be either Formative or Summative type. The formative assessment is done throughout the course duration and the internal assessment marks are decided based upon the scores obtained therein.

During the academic audit process, it was decided to lay down guidelines for assessing the course outcomes by employing direct assessment tools. The recommended guidelines are

1. Four assessment tools should be chosen for each of the Course Outcome. Three of these are mandatory, namely
   1. OU end examination (Summative)
   2. Class Test (summative)
   3. Assignment (Formative)

1. Along with the three mandatory assessment tools, any one of the following may be used as the fourth assessment tool:
   1. Tutorials (Formative), in courses where tutorial is part of work load
   2. Class room problem solving (Formative) in courses where problems exist
   3. Quiz (Formative) in theoretical courses where no problems exist
   4. Minute question (Formative) in any type of course
   5. Seminar (Formative) in any type of course
   6. Group assignment (Formative) in any course
   7. Case Study (Formative) in courses where it is feasible
   8. Any other appropriate tool which is applicable to the entire class

During review of the question papers for internal assessment, assignment and tutorial, the academic audit observed disparity in the quality and standard of the questions employed in tests, assignments, tutorials etc. It was recommended to base the setting of question papers by following Blooms Taxonomy.

The IQAC introduced the concept of Bloom's Index in order to quantify the question paper quality in terms of a numeric value.

The following numeric scale is employed to convert data from subjective realm to a quantitative scale. The resulting scale is a continuous real range between 0-10.

0-2 - Remember

3-4 – Understanding

5-6 – Applying

7-8 – Analyzing and Evaluating

9-10 - Creating

The course coordinator assigns appropriate level to each question at the time of paper setting. The Blooms index is computed for the question paper by taking the weighted average of all the questions in the paper.

Bloom's index = sum of weighted average (maximum marks of the question x numeric value of blooms scale) of all questions in the paper over the sum of maximum marks of all questions in the paper.

For the purpose of assessment of quality, the acceptable range of Bloom's index is obtained as follows:

A fair quality of question paper / assignment is presumed to contain the following levels of questions:

1. 30% of questions from 'Remembering' (Score of 2)
2. 30% of questions from ' Understanding' (Score of 4)
3. 30% of questions form 'Applying' (Score of 6)
4. 10% of questions form 'Analyzing and Evaluating' (Score of 8)

For the above levels and corresponding percentage of questions, the Bloom's index is

Bloom's Index = 0.3 x 2 + 0.3 x 4 + 0.3 x 6 + 0.1 x 8 = 4.4

Hence, the empirical range of Bloom's Index for satisfactory quality of question papers and assignments is taken as 4-6. The full range and its interpretation is presented as

Bloom's Index "0-2" - Standard Lower than Acceptable

Bloom's Index "4-6" - Acceptable range of Bloom's Index for Satisfactory quality

Bloom's Index "8-10" - Standard Higher than Acceptable

1. **Using rubrics to enrich reports' evaluation process :**

After the introduction of the outcome based education system, computation of attainment of course outcomes became essential. A CO is said to have been attained if the score obtained by a student for a particular question exceeds the satisfactory score benchmark set by the course coordinator.

In case of assessment tools like questions in internal assessment, tutorial and assignment, the evaluation is based upon the key which is prepared and made available to all the students. This ensures not only consistency of evaluation but also transparency of the evaluation system.

When it comes to evaluation of reports such as laboratory records, seminars reports, and project reports, there is a scope for discrepancy in evaluation by different teachers. The student is also unaware about the benchmarks used for evaluation of the reports.

In order to overcome the deficiency of consistency and transparency in evaluation of reports the academic audit committee recommended framing and introduction of appropriate rubrics for assessment of reports. Accordingly rubrics have been defined and adopted for:

1. Project Reports.
2. Seminar Reports.
3. Laboratory Records.

Project reports:

Project report is evaluated by the project supervisor for a score of 100 by using Project Report Assessment Rubric and then scaled to 25. The evaluation parameters are as follows:

1. Objective, Problem Statement and Methodology   - 10
2. Analysis   - 10
3. Implementation/Design   - 20
4. Project Planning   - 10
5. Results/Drawing/Graphical artifact /Conclusion   - 10
6. Project Report   - 30
7. Project Diaries   - 10

Seminar Reports:

The seminar report is evaluated by the seminar incharge / one of the course coordinators or any faculty member in the Department specialized in the area of the topic, for a score of 50 by using the Seminar Assessment Rubric, the evaluation parameters are as follows:

1. Written Report   -   15
2. Speaker's enthusiasm   -   5
3. Speaker's posture   -   5
4. Ability to speak clearly and distinctly   -   5
5. Speaker's slides   -   10
6. Speakers communication about the topic   -   5
7. Speaker's ability to answer questions   -   5

Laboratory Reports:

The Laboratory Record is evaluated for a score of 50. **The following are rubric parameters for evaluation:**

1. Write up format   -   15
2. Experimentation Observations & Calculations   -   20
3. Results and Graphs   -   10
4. Discussion of results   -   5

File Description	Document
Any additional information	[View Document](#)

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

Response: 9.8

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

2018-19	2017-18	2016-17	2015-16	2014-15
11	10	10	9	9

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	[View Document](#)
Any additional information	[View Document](#)

6.5.4 Quality assurance initiatives of the institution include:

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

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: C. Any 2 of the above

File Description	Document
e-copies of the accreditations and certifications	[View Document](#)
Details of Quality assurance initiatives of the institution	[View Document](#)
Annual reports of institution	[View Document](#)

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

Response:

Incremental Improvements made in academic domain during the preceding five years:

- Course structure and curriculum has been revised incorporating Choice Based Credit System (CBCS) in 2016 for under graduate programs (B.E). The highlights of the scheme are:
    - 5 Professional Electives
    - 3 Open Electives
    - One month Internship
    - 3 Mandatory Courses including a course in gender sensitivity and Society Outreach Program
    - CGPA system for grading on a scale of 1 to 10.
- Course structure and curriculum revised based on the guidelines issued by AICTE in the year 2018 for under graduate programs (B.E). The highlights of the AICTE model scheme are:
    - Introduction of new courses in areas of emerging technology
    - Introduction of course on constitution, environment and Indian traditional knowledge as mandatory courses
    - Introduction of 3-weeks induction program for fresher's. Inspirational videos and lectures are offered along with various other programs.
    - The curriculum lays more emphasis on professional electives. The concept of specialization is introduced at B.E level by offering 8-9 professional electives.
- Curriculum revision and introduction of CBCS system for PG courses from 2017.
- Adopted outcome based education system in 2014. Implemented the required assessment methodologies including rubrics for assessment of seminars, projects etc.
- Identification of slow learners based on aptitude test during induction program and bench mark test during the course of study. The slow learners are offered additional coaching through remedial classes.
- Introduction on video sessions has been done at first year level in order to expose the students to the latest technological innovation in the respective fields.
- New Laboratories have been set up to meet the advanced learning requirements of the students both for curricular and self-development needs. The following centers have been established:
    - Center for Innovative computing with 60 latest computer systems and audio visual facility for training programs.
    - Center for smart learning with 30 state of the art computers, smart board and audio visual facility for MOOC's, NPTEL, SWAYAM, DelNet, etc.
    - Computer center with 60 computers to offer the engineering graphics course.

- o IoT Lab
- o Dynamics of Machines Lab in mechanical department as per revised curriculum.
- o Five Research Labs for use of PG students and Ph. D. research scholars have been established.

- Examination reforms have been implemented by providing more weightage to Continuous Internal Evaluation (CIE). In the new system 30 marks are assigned for CIE in place of 25 marks in the earlier system.
- Conducting of Certification Courses through Microsoft IT Academy (Cloud Computing, Mobile Computing) and SAP through TASK for improving employability.
- Extracurricular and structured Co-curricular activities are extensively encouraged and guided through various professional student chapters like IEEE, SAE, EWB, ICI, IEI, ACM, CSE etc.
- NPTEL courses are made mandatory for faculty and highly recommended for students. Till date faculty members have completed 89 certification courses.
- Faculty is demonstrating social responsibility by undertaking socio-responsive projects for local community under aegis of EWB and IEEE.
- Continues upgradation of laboratory and computing equipment.
- Procurement of upgraded licensed software as and when launched by the vendors.
- Established E-Cell for promoting entrepreneurship activities. Students have won several national awards in the E-Week event of National Entrepreneurship Network (NEN).
- Offering free campus recruitment training to all the eligible students in third year in order to improve their performance in campus placements and higher studies.
- 15 lakhs of R&D funding for innovative research project proposals from faculty-student teams.
- Financial sponsorship to faculty for participation in conference and workshops and publication of papers in journals.
- Reimbursement of life-time membership fees in professional bodies for faculty.
- Promotion of IPR awareness and assistance for faculty and students for getting patents registered.

Incremental Improvements made in administrative domain during the preceding five years:

- The college has designed and implemented Online Mentoring portal which interconnects the students, parents, mentors, HOD's and Psychologist. Email and SMS service is used by the mentoring portal for multiway communication between the portal users.
- A full time Psychologist has been appointed to deal with various academic and personal problems faced by the students.
- Separate Grievance Redressal Cells for Women and SC/ST have been established and guidelines for their functioning formulated. Awareness about the Grievance Redressal has been created in the faculty and the students. In addition to this the college website also has a link for online Grievance Redressal System as mandated by AICTE for Students, Parents, Faculty and Staff of the institution.
- Installed Electronic surveillance system in the campus in 2015. The system consists of more than 100 CCTV cameras connected to DVR for approximately 15 days recording.
- Commissioned On-line examination fee payment system in 2017, wherein students can pay

Osmania University examination fees through online portal.

- Installation of LED & Solar lighting system to meet more than 2000W of lighting requirement leading to energy conservation.
- All the students are covered under group accident insurance policy of United India Insurance Company
- Creation of student activity centers for undertaking research oriented product design and fabrication projects. One center each has been established in Civil and Mechanical departments where in mechanical students fabricate vehicles for participating in competitions like SAE BAJA and civil students build working models. The robotics workshop under ECE department is used by students for design and fabrication of robots for participating in RoboCon event.
- Sanitary Pad vending machine and incinerator have been installed in women's toilets.
- The college has provided facilities for indoor and outdoor games along with appointment of professional coaches.
- Students and faculty are provided with Wi-Fi facility throughout the campus.
- Created recommended facilities for differently abled citizens
- 100% ICT enabled classrooms and seminar halls'
- Implementation of comprehensive faculty appraisal system to help the faculty in self-assessment and planning for career advancement.

File Description	Document
Any additional information	View Document

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: 13

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

2018-19	2017-18	2016-17	2015-16	2014-15
6	2	2	1	2

File Description	Document
Report of the event	[View 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:

Gender Sensitization is a critical issue which needs to be addressed at various levels. Apart from offering a mandatory course to all the undergraduate students, the institution also organizes programs and events at regular intervals in order to spread awareness about the issue. It is recognized that gender discrimination is a part of gender sensitization. Even though an increasing number of women are today engaged in pursuing professional courses and are found to be gainfully employed in corporates, governmental organizations, universities etc., many of them are found to be ill informed about their rights with respect to security, professional and sexual discrimination at work and equality issues.

Muffakham Jah College of Engineering and Technology has always been making efforts in order to sensitize the women on its campus on issues pertaining to gender equality and discrimination. Some of the efforts made by the institution in this area are presented below.

1. Course on Gender Sensitization: A new course titled 'Gender Sensitization' has been introduced by Osmania University, which is mandatory for all branches of Engineering at undergraduate level. Some of the course objectives of this course are: Develop student's sensitivity with regard to issues of gender

discrimination in contemporary India; provide a critical perspective on the socialization of men and women and to expose students to more egalitarian interactions between men and women. This course is being offered by the English Department in the V and VI semesters.

2. Safety and Security: Even though MJCET is a non-residential campus, the institution exercises utmost concern regarding safety and security of the students and staff in general and the women students and staff in particular. In this regard, various measures are undertaken from the perspective of safety and security.

- The campus has a liberal number of security personnel posted at all key locations, especially locations which are isolated and not frequented by the students and staff. Security personnel from private agency and Society employees are deputed on vigilance duty for this purpose. The duty rooster is made in three shifts so that security is not lax during any hour of the day.
- The security personnel are assisted in discharge of their duty by closed circuit cameras. The institution has installed CC TV cameras at over 100 important locations in the campus such as main entrance, canteen and common areas etc. All the cameras are connected to a central DVR for recording and the live footage can be viewed on TV. The recording backup is maintained for a period of 30 days.
- Complaint and suggestion boxes are made available in every floor of all the academic blocks. Women students can utilize this facility to register any issues pertaining to their safety and security. The facility maintains the confidentiality of the complainant.
- For specific complaints, the women students and faculty can approach the Women's Grievance Cell. This cell addresses the issues faced by female students and staff of the college and attempts to resolve them in a time bound manner.
- The parents get a day to day update on the class attendance through an online attendance tracking system maintained by 100pins.com portal. The feature helps the parents of women students in knowing the whereabouts of their children.
- An active Anti-Ragging Committee is functional with senior staff and students as members, to prevent incidents of ragging in the campus, especially ragging of female students. The committee includes women faculty and students as members.

3. Counselling and mentoring The institution has implemented a comprehensive mentoring procedure for monitoring the student progress and addressing the various academic and personal issued faced by them during their course of study. A qualified Psychologist is available on the campus to counsel students in needs of psychological therapy.

The student counsellor counsels the students, especially female students, with respect to their various issues, either personal or professional. The student counsellor also conducts pertinent programs for the benefit of students, from time to time. Some of the events conducted are listed below:

- World Suicide Prevention Day: 10-Sep-19
- Good Friendship Awareness: 06-Aug-19
- International Day against Drug Abuse and Illicit Trafficking: 26-Jun-19
- International Women's Day: 01-Mar-19
- Emotional Intelligence and Classroom Management: 07-Jul-18

An online mentoring and counselling portal has been developed by the Institution and implemented in the year 2017. Senior faculty members from every department are designated as Mentors. Every mentor is assigned 10 students, for the entire duration of study. This will help in the establishment of a mentor-

mentee bond and also provide a single point of contact to the parents for the entire course duration. All information pertaining to the mentee is available on the portal through individual logins. The mentor is permitted to send SMS to the parents, students, HOD and psychologist directly through the portal in order to report the student progress periodically or to report any other issues.

4. Women's Common room

A separate Common Room for female students is available with following facilities:

- Resting area
- Wash rooms
- Wash basins
- Sanitary pad vending machine and incinerator in the women's toilets
- Two female attenders who are available during college timings

Specific cleaning schedule is given to the housekeeping staff and followed meticulously in order to maintain hygiene in the women's common room.

5. Other facilities A Dispensary is available in the campus with a qualified doctor and a nurse available on all working days to attend to the day to day emergencies if any.

File Description	Document
Any additional information	[View Document](#)

7.1.3 Alternate Energy initiatives such as:

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

Response: 0.59

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

Response: 3568

7.1.3.2 Total annual power requirement (in KWH)

Response: 600000

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	[View Document](#)
Any additional information	[View Document](#)

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 3.58

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

Response: 4560

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 127406

File Description	Document
Details of lighting power requirements met through LED bulbs	View Document
Any additional information	View Document

7.1.5 Waste Management steps including:
- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

Response:

The waste generated in the institution needs to be managed in a scientific manner in order to reduce adverse environmental impact. The most commonly handled waste is solid waste and liquid waste. In an engineering institution, apart from these two categories of waste, the third important category is E-waste. The concept of E-waste management is relatively new but it is equally important in view of the hazardous nature of the waste and the large quantity generated in an engineering college.

The steps taken by MJ College towards management of each of the above types of waste are described below:

- **Solid waste management**

The solid waste generated in the campus can be demarcated into dry waste (inorganic) and wet waste (organic). Being a non-residential campus, generation of wet waste is confined largely to the canteens and pantry. Apart from this, small quantity of wet waste is generated through the disposal of leftover food by the students and the staff. The bulk of solid waste generated is of dry type consisting of stationary like paper, wood and plastic.

Primary collection is done through dust bins placed throughout the campus at strategically convenient locations and the secondary collection is done by the Municipal Corporation vehicle which visits the campus every day. Throwing of waste in open spaces is strictly prohibited and usage of plastic bags is discouraged within the premises of the College.

Paper waste is generated in large quantities and the same is periodically discarded through scrap dealers for recycling.

- **Liquid waste management**

The campus adopts water borne sewerage system in the campus which consists of underground network of sewer pipes with manholes. The black waste water from WCs and also wash basins is directly discharged in to the sewerage system which is connected to the city underground sewerage system of the Water Supply and Sewerage Board. The sewage is ultimately treated in the sewage treatment plant of the Board and the effluent is discharged as per pollution control board norms. The grey water from canteen, wash area and RO plant is directed to a recycling sump and the same is used for gardening purpose.

- **E-waste management**

With large scale computerization, safe disposal of E-waste has become important. The various components of E-waste encountered in the campus consists of computer systems, CRT and LED monitors, electronic components used in the laboratories, printers etc. Outdated computer systems which are in working condition are distributed to the constituent schools of the society for use by the school students. Computer systems which are damaged and not in working condition, electrical and electronic instruments and components are disposed through E-Waste scarp dealers by adopting a transparent system

File Description	Document
Any additional information	[View Document](#)

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

The college campus has three scientifically developed and well maintained rainwater harvesting pits approved and registered by the local Municipal Authorities. These rain water harvesting pits are constructed at strategic locations to divert the rain water from terrace of different blocks to these pits. Locations of these pits are as follows:

1. **PIT- 1**: Situated in the western side of campus, adjacent to Workshops (Block III) covering the entire area of Civil and Mechanical Engineering laboratories, open land near Gate 2 of the campus etc. The approximate catchment area of this rain water harvesting pit is about 8 acre.

The size of this pit 10' x 10' x 7'.

1. **PIT – 2**: Situated in the eastern side of the campus adjacent to Football Ground covering a catchment area of about 4 acre.

The size of this pit 10' x 7' x 7'

1. **PIT - 3:** Behind MBA building in the south- eastern side of the campus covering a catchment area of about 4 acre.

In addition to these rain harvesting pits the campus is having two old well maintained deep wells which also serve as natural rain water harvesting pits. The water from these wells is utilized for watering the plants and trees in the campus.

File Description	Document
Any additional information	[View Document](#)

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

Response:

In order to inculcate a responsible attitude towards preserving the environment and to impart knowledge about Green practices, the 'Environmental Science' course has been introduced by Osmania University. This course is mandatory for all branches of Engineering. Some of the course objectives of this course are:Create awareness and impart basic knowledge about the environment and its allied problems andstudy the different types of pollutions and their impact on environment. Some of the course outcomes of this course are: Develop an attitude of concern for the environment, conservation of natural resources and biological diversity and creating awareness of Green technologies for nation's security.

As a part of the drive for promoting pollution free campus as well as a healthy lifestyle, students residing in nearby hostels are encouraged to commute to the institute by walk or by bicycles.The college is well connected to the various parts of city through TSRTC transportation system.Staff and students,who reside at a longer distance from the campus, utilize this facility. A few of the students and staff use car-pool as a means of commutation.

The Institute has well-laid demarcated pedestrian paths and roads within the campus. This allows students and staff to commute safely on the campus.

The Institute actively discourages the use of plastic on the campus. The use of plastic in college canteens is banned. Students and staff are sensitized to the disadvantages of using plastic through various programmes which are conducted from time to time. In this regard, an awareness campaign on 'Ban to the Plastic at MJCET'was conducted as part of the "52nd Engineers Day – 2019" on 18-09-2019. In addition, 'Say No to Plastic' boards are displayed at various points in the campus.All kinds of paper waste are sent for

recycling.

Major efforts are being undertaken to prepare and maintain paperless documents. Some of these initiatives are: Earlier, Student attendance systemwas paper-based, wherein, shortage of attendance was communicated to the parents through post. From the past four academic years, student attendanceis maintained completely online using 100pins.comportal. Similarly, student counselling and mentoring system was earlier completely paper based. Recently, the 'Online Mentoring / Counselling Application' has been developed and implemented which has made the student counselling processcompletely online. A major move away from paper based teaching material is the 'Students Resource'portal which is used by the faculty to uploadlecture notes and other learning material for the benefit of the students.Maximum efforts are made to undertake communication between departments, staff and students through official e-mail.

Tree plantation and maintenance is a regular practice of the institute.For this purpose,fulltime gardening staff is employed by the Sultan ulUloom Education Society.All the lawnson the college campus are equipped with sprinkler system and drip to reduce water wastage. In August 2019, massive tree plantation drive was undertaken on the college campus as part of 'One student One Plant' initiative of Central government and AICTE.

File Description	Document
Any additional information	View Document

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

Response: 0.78

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)

2018-19	2017-18	2016-17	2015-16	2014-15
4.31	4.09	7.08	0.35	2.56

File Description	Document
Details of expenditure on green initiatives and waste management during the last five years	View Document
Any additional information	View Document

7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

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

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

Response: C. At least 4 of the above

File Description	Document
Resources available in the institution for Divyangjan	[View Document](#)
Any additional information	[View Document](#)

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

Response: 11

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

2018-19	2017-18	2016-17	2015-16	2014-15
1	5	1	3	1

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	[View Document](#)
Any additional information	[View Document](#)

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last

five years (Not addressed elsewhere)

Response: 26

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

2018-19	2017-18	2016-17	2015-16	2014-15
3	7	2	5	9

File Description	Document
Report of the event	[View Document](#)
Any additional information	[View Document](#)

7.1.12
Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes

File Description	Document
Any additional information	[View Document](#)
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	[View Document](#)

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

Response: Yes

File Description	Document
Any additional information	[View Document](#)

7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

Response: Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	View Document
Any additional information	View Document

7.1.15 The institution offers a course on Human Values and professional ethics

Response: Yes

File Description	Document
Any additional information	View Document
Provide link to Courses on Human Values and professional ethics on Institutional website	View Document

7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

Response: Yes

File Description	Document
Any additional information	View Document

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

Response: 15

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
3	3	3	3	3

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

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

Response:

The Institution organizes the following National Festivals and Anniversaries:

1. Independence Day & Republic Day:

Independence Day and Republic day celebrations at the institute exhibit the dedication and commitment of the staff and students towards the nation. It is celebrated in remembrance of the national heroes who sacrificed their lives to give an independent nation. The Sultan Ul Uloom Education Society organizes centralized celebrations on the occasion of Independence and Republic Day. The flag hoisting is done by the chairman of the society followed by an address to the students highlighting the importance of the national festivals. There after the staff and students return to their respective institutions and follow their own programs if any.

2. Teacher's Day:

The Teacher's day is celebrated to commemorate the Birth Anniversary of the great teacher and philosopher Dr. Sarvepalli Radhakrishnan, who was the first vice president and second president of India. This day is celebrated on 5th September. On this occasion the students initiate the celebrations by honouring them and organizing functions to commemorate the occasion.

3. Engineer's Day:

Engineer's Day is celebrated on 15th September every year as a tribute to the great Indian Engineer, statesman and the recipient of India's highest civilian award the "Bharat Ratna",

4. Dr. Abdul Kalam Innovation Day:

Dr. Abdul Kalam Innovation Day is celebrated to honour and mark the importance of the former Indian president Dr. A P J Abdul Kalam. His remembrance through the Celebration of innovation day by awarding the innovative ideas and projects of the students is very relevant to an engineering institution in view of Dr. Kalam's unstinted contributions to the field of science and technology. Distinguished guests are invited to judge the entries of the projects and choose the best innovative projects which are then awarded with cash prizes and certificates.

5. National Science Day:

National Science day is celebrated every year on 28th February in memory of the Dr. C.V.Raman, who

was an Indian physicist born in the former Madras Province in India, and carried out ground-breaking work in the field of light scattering, which earned him the 1930 Nobel Prize for Physics invention Raman Effect. On this occasion, eminent scientists from reputed organisations are invited to deliver guest lecture on the trending topics in the field of physics and latest technologies for faculty and students.

File Description	Document
Any additional information	[View Document](#)

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

Response:

Transparency in Financial Functions

• All monetary transactions of the college are conducted through cheque or e-transfer.
• All the employee salaries are credited into their respective salary accounts in SBI, P&SB, Banjara Hills.
• The data submitted to NIRF for the past three years is also kept in public domain on the college website
• The list of programs being run by the institution along with the prescribed fees and mode of admission is available on the college website. The tuition fees and examination fees are remitted through the SBI e-commerce portal.
• There is decentralization in day-to-day working and all administrative decisions. Annual Budget is prepared by the Heads of departments.Advisor Cum Director reviews the statements and incorporates them into the institutional budget. Management finally grants the permission to those budget statements.

Transparency in Academic Functions

• The core values of the institution like vision, mission at institutional and departmental level, program educational objectives, program outcomes, program specific outcomes, etc., are displayed at prominent locations like notice boards, entrance of all blocks, library, laboratories, website etc.
• The list of faculty along with their short bio-data is available on college website.
• List of facilities including laboratories and the hardware and software therein is available for every department.
• Daily attendance as well as monthly attendance of the students is made available to the parents through the 100pins.com messaging system.Monthly attendance is displayed on the departmental notice boards.
• The guidelines for evaluation of Class Tests, Assignments and Projects in the form of solution keys and project rubrics are made available on Student Resources.The evaluated class tests, answer sheets and assignments are shared with the students. The internal marks are communicated to the parents through student counselors.
• Programs offered, prospectus and curricula are uploaded on the college website. Academic calendar,

Course Handout, Timetables are made available to the students prior to the starting of every semester.

• Examination related notifications and circulars are displayed on the college website.

• Faculty feedback is taken periodically by an independent Feedback committee comprising of senior faculty members. Learning materials as well as assessment tools are made available on Student resources.

Transparency in Administrative Functions

• The hierarchy of administration in the institution is clearly defined, starting from the governing body, and is made available on the institution website.

• Transparency in Admission process is maintained. The student admissions are as per the extant State Government rules and regulations for minority institutions.

• The Institution follows the rules, procedures and policies in recruitment and promotion as stipulated by AICTE, Osmania University and UGC from time to time.

• Institutional level issues are discussed in the meeting of the Heads of the Departments/Sections. These meeting are also held periodically and the MOM are circulated to all the Departments.

• The decisions taken and the issues discussed in meetings of the Heads of Departments are informed to the faculty in the departmental meetings.

• Service and leave rules are placed in public domain.

File Description	Document
Any additional information	[View Document](#)

7.2 Best Practices

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

Response:

Muffakham Jah College of Engineering and Technology is a four-decade old institution which has introduced several innovative academic and administrative practices from time to time in order to achieve excellence in pedagogy, academic success and overall development of students. Some of the practices which are currently in practice are described below.

Best Practice I

Title: Establishment of Sustainable Research Ecosystem

Objective: Academic research in a higher education institution benefits the students, faculty and the institution. Sound academic fundamentals is the usual target of teaching intensive institutions, but by imparting a research flair to the conventional academics, the students are empowered with independent critical learning skills along with oral and written communication skills. They also gain experience of team work which will stand in good stead during their subsequent professional career. Exposure to contemporary research work helps the faculty members in providing experiential learning environment to

the students. The institution benefits from the enhanced visibility in the scientific community due to increase in the presentations and publications of the investigators.

The Context: MJCET was established in the year 1980 with undergraduate engineering courses. Graduate courses were added between 2004 and 2013 followed by research centers leading to award of Ph. D. degree in 5 departments between 2013 and 2017. In order to address the growing significance of research and innovation at undergraduate level and necessity at post graduate level, the college formulated a comprehensive strategy to establish a sustainable research ecosystem on the campus.

The first step in this direction was taken in the year 2007 by including R & D as one of the key thrust areas in the strategic plan and establishing the R & D cell. Research funding was one of the critical areas which had to be addressed in the initial stage. A beginning was made by providing a budget of Rs. 1 lakh in 2007 for 'seed funding' of R & D projects. The next challenge was to convince the faculty and students at large to formulate projects for funding from the R & D cell. For this purpose, faculty members with inclination towards research were identified and motivated to avail seed funds by formulating projects in association with interested students. The guidelines for grant of funds were periodically tweaked in order to sustain R & D activities in the campus.

The Practice: Up to 2005, the pedagogy was heavily oriented towards 'teaching' with hardly any research culture. Five UG programs were accredited by NBA in 2002 during which lack of research orientation was stated as one of the weaknesses by the expert committee. Except for some isolated efforts by individual faculty members and students, there was no organized research activity in the campus till 2007. At this stage, external funding was scarce and difficult to get as the faculty and students did not have resources needed to undertake preliminary work for project formulation.

The R & D cell was established in 2007 with a budget of Rs. 1 lakh for providing seed fund to R & D projects conceived by the faculty-student teams. It was immaterial whether the projects were student-conceived or faculty-generated; the end result was a win- win situation for the students, faculty and the institution.

The R & D cell has a committee consisting of a chairperson, convener and 10 members. The convener calls for research proposals from the student-mentor teams during the months of July-August every year. The investigators are required to present their research proposal to the R & D cell members and answer the queries satisfactorily.

A project proposal is approved if it leads to one of the following outcomes:

- Publication in a Journal or conference
- patent or copyright
- Contribution towards new knowledge base
- Belongs to the thrust areas notified by department/institution/university/state government/central government
- Results in a working model of a new or existing complex product / process / system

On approval of the project, the sanctioned budget is released in the name of the faculty mentor and the team is given a time frame of one academic year to complete the work. After completion, the mentor is required to submit a closure report and demonstrate the working of the project to the R & D team.

Evidence of Success: The success achieved in establishing a sustainable research ecosystem can be evidenced from the following facts:

1. The R & D cell started functioning from 2007. During the last 12 years it has not only sustained but has grown from strength to strength.
2. The R & D budget has been steadily increased year after year from Rs. 1 lakh in 2007 to Rs. 15 lakhs in 2019.
3. The quality of projects has improved year over year. From 2016 more and more interdisciplinary projects are being approved
4. On an average 10-15 projects are approved every year
5. The number of applications for funding have been steadily increasing
6. Grant of patent for the invention titled 'SOLAR POWERED SPINNING WHEEL' for 20 years from October 2014
7. Establishment of Institution Innovation Council in 2018
8. Establishment of Incubation cell 'MJ HUB' in 2018
9. Registration of 4 start-ups under MJ HUB.

Problems encountered and Resources Required: In the initial stages of promotion of research activities, the R & D cell had to contend with faculty reluctance and student ignorance. Sustained efforts had to be made in order to create awareness about R & D cell and the available funding. Workshop was organized in order to familiarize the students and faculty with the process of preparation of research proposal and budget estimation. Another difficulty faced by the investigators pertains to aligning of project timelines with academic calendar. The resources required were space for R & D laboratory and financial funding.

Best Practice II

Title: Incentivisation of Faculty Professional advancement

Objective: Faculty competence is an important prerequisite for the overall growth of an institution of high learning. Competence can be measured in terms of several indicators like qualification, research, publications, consultancy, mentoring, societal contribution, knowledge dissemination, networking etc. Prior to 2006 many colleges, including MJCET, had quite a few B.E. graduates as teaching staff. Even though this faculty delivered satisfactory performance in the class room, they were found wanting in discharge of other professional responsibilities of a teacher. In this scenario, all perspective plans approved by governing council since 2007 focused on faculty development as one of the major thrust areas in order to attain excellence. The following indicators were identified in the perspective plans:

- Qualification improvement
- Publications in journals and conferences
- Participation in refresher courses, FDPs, etc.
- Research
- Knowledge dissemination and networking

Context: Prior to 2006 the minimum faculty qualification at entry level was a Bachelor's degree. Owing to shortage of post graduates opting for teaching career, colleges were forced to appoint candidates with B.E. degree as teaching staff. Only few faculty members possessed Ph. D. qualification and faculty with M.E. degree had the opportunity of moving up the career ladder even up to the rank of a professor. In these circumstances, MJCET was constrained in starting post graduate programs and establishing research

centers.

With the advent of globalization and the rapid growth of service industry under the new economy sector, the faculty had to contend with the task of acquiring additional attributes in order to ensure that the institution remained in the reckoning for excellence. This called for devising a comprehensive scheme for faculty development.

One of the challenges faced in implementation of the perspective plan on faculty development, in the absence of mandatory regulations by statutory bodies, was to motivate the faculty to improve qualifications, undertake research and publish papers. The other challenge was to improve networking leading to collaboration with peers to familiarize themselves with the latest trends in their areas.

The Practice: The strategic development plan of 2007 identified faculty development as a thrust area for realizing the vision of creating brand name 'MJCET' at state and national level. Subsequent to the approval of the strategic development plan, the following guidelines were adopted in order to achieve the target.

- **Qualification improvement:** In order to facilitate faculty members with B.E. qualification to obtain M.E. degree and those with M.E. qualification to obtain Ph. D. degree, a comprehensive scheme for grant of study leave / sabbatical leave was implemented in 2008. Under this scheme faculty members pursuing M.E. under SSS scheme were given study leave in extension of their summer vacation. Faculty members pursuing M.E. course from IIT or NIT were given one year of study leave. Those pursuing M.E. in part-time were given leave for the period of their examinations.

In 2011, approval was granted to the scheme for grant of 3 years study / sabbatical leave to employees pursuing full time Ph. D. from IITs.

As an incentive for qualification improvement, faculty members acquiring M.E. degree were awarded two advance increments or benefit of 2 years of service for promotions. After all faculty members acquired M.E. degree this scheme became redundant. Faculty members acquiring Ph.D. degree are sanctioned a special allowance of Rs. 5000 per month.

- **Knowledge dissemination and Networking:** Faculty members are encouraged to deliver guest lectures, organize knowledge transfer programs, act as resource persons and chair conference and seminar sessions in other institutions. Special leave is granted for this purpose. The importance of membership in professional societies was understood and a scheme was formulated under which every faculty member with more than 2 years of service was eligible to claim reimbursement for paying life membership fee in professional societies relevant to their specialization. Apart from this, the annual membership fee for faculty advisors of IEEE is also paid by the institution.

- **Participation in refresher courses, FDPs, Seminars, Conference and Publications in Journals and Conferences:** Detailed guidelines were formulated and notified in the year 2008. Under the scheme, faculty members presenting in conferences and seminars are eligible to avail a maximum of Rs. 5000 per year towards registration fee in addition to TA and DA.

For attending conferences/seminars/workshops faculty members can avail a maximum of Rs. 3000 per year towards registration fee in addition to TA and DA.

- **Research:** In order to encourage faculty members to undertake research, they were allowed to avail the R & D grants from the college by formulating their projects in association with a student team. The R & D cell also provides necessary assistance to the faculty members who apply for external funding from AICTE or DST and other similar organizations.

All the schemes mentioned above have been successfully implemented from 2007-2008 and have yielded excellent results by helping faculty professional advancement.

Evidence of Success: The success of the schemes implemented for faculty professional advancement can be demonstrated from the following statistics:

1. All teaching staff members today possess M.E. qualification. From 2008 to 2011, 19 faculty members availed the benefits to obtain M.E. degree
2. Faculty with Ph. D. qualification has improved from 19 in 2007 to 51 in 2019. A total of 54 faculty members obtained Ph. D. after implementation of the scheme.
3. The number of professors increased from 13 in 2007 against the requirement of 28 (53% deficiency) to 26 in 2019 against the requirement of 22 (18% excess)
4. From 2007 to 2019, 106 faculty members have become members of various Professional bodies by availing the scheme.
5. Participation in seminars / conferences / workshops /refresher courses increased from 71 in 2011 to 106 on an average between 2015 and 2019
6. Publications in journals and conferences increased from 20 in 2011 to 119 in 2019
7. Active participation in R & D projects by faculty – student teams has resulted in a patent being granted for 'solar Powered Spinning Wheel' in 2014.
8. Faculty members are imparting training in specialized areas like VLSI, Network design, IoT in local, national and international organizations.
9. Computer literacy in faculty has improved which resulted in extensive use of ICT facilities.

Best Practice III

Title: Benchmark Testing

Objective: Monitoring of student academic progress is a vital ingredient of pedagogic process, more so in case of outcome based education system, in which the teacher uses student performance data in order to assess the learning levels of the students. Benchmark testing was introduced in the year 2018-2019 for I year students in order to help the teacher in quick identification of the students who are not meeting the course outcomes. Paying extra attention to such students has improved individual performance and eventually improved the overall pass percentage at first year level.

The Context: Academic performance has been consistently good since the inception of the college. The overall success rate with reference to intake has been around 85% over the years. The pass percentage of fourth year has been around 95%. However, in the first year, the pass percentage has been usually in the range of 40-60% as the students took time to get acclimatized to the pedagogic practices of a professional course. With the implementation of benchmark testing in the first year, the students now have an opportunity of periodic self-assessment to know the level of learning attained by them. Based on the benchmark scores, they can indulge in additional hours of self-study in weak areas or attend remedial classes in order to improve themselves. The practice has been found to help the students in overcoming their weakness in specific subject areas.

The Practice: Under the CBCS scheme implemented by the University in 2016, Continuous Internal Evaluation has been introduced. The CIE consists of two internal tests, 2 assignments and one quiz. These assessments are spread across the 16 weeks of contact during a semester. It is desirable that a more frequent assessment be done in order to help both the teacher and the student to take corrective steps to improve the performance. With this in view, the benchmark test practice was introduced in the first year on a trial basis in order to assess its impact on the results.

Under the scheme, three benchmark tests are scheduled for each theory course. The schedule of benchmark tests is released in the beginning of the semester. The teacher conducts the test after specifying the topics. It is not necessary to include the whole unit in the benchmark test. Most of the times, the application aspect is stressed in the benchmark test.

Evidence of Success: After implementation of the benchmark test for the first year in 2018-2019, the results have improved substantially.

Problems encountered and resources required: Since the benchmark tests do not contribute towards the CIE marks, many students did not take them seriously in the initial stages. However, after the first internal assessments they realized that those who took the benchmark tests were more successful in the internal assessment. After this realization, the attendance has improved and now about 90% of the class takes the benchmark tests.

Conducting the benchmark tests was an additional workload for the faculty. However, the faculty implemented the scheme enthusiastically after realizing that the additional efforts fall within the 40 hours per week of workload.

File Description	Document
Any additional information	[View Document]()
Link for Additional Information	[View Document]()

7.3 Institutional Distinctiveness

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

Response:

MJCET envisions contributing high calibre engineers for building a modern society. This vision can be achieved by attaining excellence in imparting education by adopting coherent and judiciously coordinated curricular and co-curricular programs. Prolific faculty and supportive infrastructure are the other building blocks of the comprehensive strategy for realizing the institutional vision.

The strategic development plan, prepared every three years since 2007, has also rightly included the above building blocks amongst the major thrust areas. It is therefore justified to say that the institution has consistently accorded priority to pedagogy, faculty development and infrastructure upgradation in the run up to realize the vision of producing high calibre engineers.

Pedagogy: Effective teaching-learning processes have always been the forte of MJCET since its inception. In the recent past, adoption of Outcome Based Education (OBE) system in the year 2014 is a major milestone in pedagogical evolution. The following are the highlights of OBE as implemented in MJCET:

* Established hierarchal academic system consisting of Program Coordinator, Module coordinator, course advisor and course coordinator.
* Defined Course outcomes for all theory, laboratory, seminar and project courses.
* Mapped the course outcomes to the programme outcomes and programme specific outcomes
* Established methodology for assessment of COs and POs through direct and indirect assessment tools.
* Developed an online assessment matrix for continuous monitoring of CO attainment
* Introduced 'out-of-curriculum' content in order to provide exposure to emerging technologies and certification by professional bodies.
* Encouraged experiential learning through mini projects, R & D projects and funding for competitions like SAE BAJA, ROBOCON etc.
* Proactively pushed curriculum reforms in BOS for introduction of new courses based upon deficiencies in PO-Courses mapping.
* Introduced 'student resources' link on the college website for uploading course related resources by the faculty.
* Adopted ICT for effective curriculum delivery.

Prolific Faculty: Faculty profile is one of the contributing factors in producing high calibre graduates. The college has formulated policies and guidelines from time to time with a focus on hiring accomplished individuals and improving the quality of the existing faculty. Some of the initiatives taken to improve the faculty profile are:

* Encouraged faculty to improve qualification from B.E. to M.E. and M.E. to Ph. D. Incentives in the form of study leave, special leave for examinations, advance increments for acquiring M.E. and special allowance on acquiring Ph. D. have been sanctioned.
* Encouraged faculty to publish research papers in UGC recognized journals, seminars and conferences and attend FDPs by providing sponsorship to cover the fees, TA and DA.
* Encouraged faculty to become life members of professional institutions by sponsoring the membership fees.
* Encouraged faculty to undertake research by sanctioning projects from R & D cell budget
* Encouraged the faculty to update themselves by enrolling in NPTEL certification courses.

- Inculcated competitiveness and accountability by introducing a comprehensive faculty appraisal system.

Supportive Infrastructure: The College regularly earmarks a part of the budget for augmenting and/or upgrading infrastructure. Apart from creating new facilities to meet academic, administrative and service related demands, upgradation and modernization of existing laboratory and computing equipment is also undertaken. Modernization of the class rooms and seminar halls is also undertaken periodically. Some of the recent initiatives are as follows:

- Established a 30 seater 'Centre for Smart Learning' equipped with 'All-in-one' computers, 75" smart board, audio-video facilities for self- learning.
- Established a 60 seater ' Centre for Innovative Computing' equipped with 'All-in-one' computers with audio-video facilities for advanced computing needs and conduct of training programs.
- Established a modern 60 seater modular computer centre exclusively for teaching 'Engineering Graphics' and drafting/drawing courses in Civil and Mechanical Engineering. The lab has 'lecture-broadcast' feature in which a lecture session can be viewed simultaneously in all the three sections of the laboratory.
- Established IoT Lab in ECED in collaboration with 'Standards Work Group' of IEEE Hyderabad.
- Established PCB Lab in ECED for fabrication of PCB
- Established 'Student Activity Centres' in Civil, Mechanical and ECE for students to undertake design and fabrication of projects.
- Upgrading of computers is undertaken every year so as to equip the laboratories with the systems of latest configuration.
- All the class rooms and seminar halls are provided with ICT facilities.

Distinctive Outcomes

1. From being an undergraduate college till 2004, MJCET is today offering five PG courses and has research centres in five departments where 69 research scholars are pursuing Ph. D. degree.
2. The results of the outgoing batch have been consistently good and an average of 85% of the admitted students graduate within four years.
3. The academic performance is noteworthy with 50-60% graduates passing with distinction and 25-35% in first class.
4. Students of MJCET corner a large percentage of ranks in the top 10 university merit list. In 2018 they secured 35 ranks amongst all the affiliated colleges. The university toppers in CSE, ECE, IT and production engineering belonged to MJCET.
5. At the national level, the college was placed in the 150-200 band by NIRF. All India ranks accorded by national level news magazines for 2019 are: 42nd by The Week, 52nd by The Outlook, 47th by The Time Daily and 28th by India Today.
6. The college has over 15 registered chapters of various professional societies and 5 local clubs.

These chapters organize various annual events and participate in national and state level competitions. Awards have been won in quite a few of the events.

7. About 26% of the faculty possess Ph. D. degree and 44% are pursuing it. There are 26 professors on roll which is more than the 22 professors required as per AICTE norms.

8. The faculty actively participates in professional development activities. They have published over 59 papers and 66 papers in SCOPUS indexed journals and conference proceedings respectively. They have participated in about 127 FDPs in the last year.

9. Every year 10-15 faculty-student teams undertake research projects from the funds sanctioned by R & D cell

10. 'Solar Powered Spinning Wheel' has been granted patent in 2014.

11. The Institute Innovation Council and Incubation Cell have registered 4 start ups so far.

5. CONCLUSION

Additional Information :

Some the distinctive features of MJCET which have contributed towards successful growth are as follows:

- The college has an excellent track record of academic performance in the form of an average graduation percentage of 85 and a good number of ranks in the university top 10 merit list.
- The college awards gold medals to the top rankers of all B.E. and M. E. courses. Silver medals are awarded to the next two toppers.
- A unique feature is 'regular student award' given in the form of a silver medal to all the students with 95% and above attendance.
- The NPTEL local chapter encourages and guides faculty and students in the process of identification, registration and online certification.
- The college provides unstinted support and encouragement to student professional chapters and local clubs. Along with financial support infrastructural support is provided in the form of three activity centers with facilities for designing and fabricating working models.
- The College is utilizing the 100pins.com portal for posting attendance online. The system is tuned to provide SMS service to the parents informing them about the daily attendance of student.
- The college has designed and made functional an on-line mentoring portal for effective management of mentoring and counseling services. The portal provides a seamless connectivity between parent-student-mentor-teacher-HOD-Dean-Psychologist through SMS and e-mail service.
- The college has developed a 'Student Resources' link on the official website which is utilized by individual faculty members to upload relevant material like course handouts, teaching schedules, assignments, lecture notes, presentations, and assessment matrix which can be accessed by the students from anywhere.
- The college has an active E-Cell (Entrepreneurship Cell) which has won several national awards in the E-week competition held by NEN sponsored by Wadhwani Foundation. As part of the activities students visit schools and spread awareness about innovation and entrepreneurship and organize seminars and talks on the subject.
- Patent has been granted in 2014 to one of the R & D project with the title 'Solar Powered Spinning Wheel'. Application for grant of patent to three other innovations of the R & D has been filed.

Concluding Remarks :

MJCET is a 38 year old affiliated institution offering courses leading to B.E., M. E. and Ph. D. degree of Osmania University. The institute has a well framed vision and mission statement which is compatible with the present national and global societal needs.

A decentralized and participative management system is followed in which all the employees develop a feeling of ownership and strive to achieve the institutional vision. The governance system comprises of BoG, Governing Council, Principal and Deans who are assisted by HODs, Associate HODs, Coordinators and Chairpersons of the various committees in the decision making process. Delegation of power with accountability has led to the establishment a robust academic framework which is important for effective

governance and institutional growth.

The institution has adopted OBE system in 2014. Academic audit is carried out every semester through the PAC, AAC and DAB.

The institution regularly prepares strategic development plan to identify thrust areas for attainment of the vision and goals. Policies are notified and implemented in order to provide the necessary stimulus at the grass root level. Some of the thrust areas targeted in the last decade are faculty development, R & D, Placements, PG Courses and Research Centers, Infrastructure and facilities extension, administrative reforms etc. While many of the targets have been fully met, few have been partially met.

The outcome of the strategic development initiatives is reflected in the overall development and growth witnessed since the inception of the college. Today, the college is well known in Telangana for delivering a holistic education system consisting of good academics, state of the art infrastructure, internship and industry interaction, self-learning opportunities, proactive professional chapters providing an extensive range of co-curricular activities, participation in national competitions, Research and innovation opportunities etc. The features cater to the comprehensive development of the students and also play a significant role in the perceptive ranking of the institution amongst the stakeholders.

The Institute has been ranked in the 150-200 band by NIRF and has consistently been ranked very well in the various national magazine surveys for ranking of engineering colleges in the country.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification
1.1.2	Number of certificate/diploma program introduced during the last five years 1.1.2.1. **Number of certificate/diploma programs introduced year-wise during the last five years** Answer before DVV Verification: *(see table below)* Answer After DVV Verification : *(see table below)*
1.2.1	Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years 1.2.1.1. How many new courses are introduced within the last five years Answer before DVV Verification : 115 Answer after DVV Verification: 66
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 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 Answer before DVV Verification: *(see table below)* Answer After DVV Verification : *(see table below)*
1.3.2	Number of value added courses imparting transferable and life skills offered during the last five years 1.3.2.1. Number of value-added courses imparting transferable and life skills offered during the last five years Answer before DVV Verification : 12 Answer after DVV Verification: 9

1.1.2.1 Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1	0	3	3	1

1.1.2.1 Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	1	2	0

1.2.3.1 Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
59	0	129	104	55

1.2.3.1 Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	19	87	0

1.3.3	Percentage of students undertaking field projects / internships
	1.3.3.1. Number of students undertaking field projects or internships Answer before DVV Verification : 635 Answer after DVV Verification: 610
2.1.2	Average Enrollment percentage (Average of last five years) 2.1.2.1. Number of students admitted year-wise during the last five years Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1016	972	1006	990	958

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
599	591	602	593	586

2.1.2.2. Number of sanctioned seats year-wise during the last five years
Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1038	1038	1038	1038	1038

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
882	882	882	882	882

2.3.3	Ratio of students to mentor for academic and stress related issues 2.3.3.1. Number of mentors Answer before DVV Verification : 154 Answer after DVV Verification: 52 Remark : DVV made the changes as per list of mentor for 2018-19 provided by HEI. DVVhas counted one mentor once for a year. DVV has not considered list of mentor for 2019-20.
2.4.2	Average percentage of full time teachers with Ph.D. during the last five years 2.4.2.1. Number of full time teachers with Ph.D. year-wise during the last five years Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
62	58	62	58	52

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
62	58	62	58	52

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1	5	1	0	1

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	2	0	1	1

Remark : DVV made the changes as per award letters of 5th ASDF Global Award 2015, Association of Scientist, Devoloper and Faculties for 2015-16 provided by HEI.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
3	0	0	0	0

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
1	0	0	0	0

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15

33	11	11	3	1

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
31	11	11	3	1

3.4.2

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	2	2	2

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	1	0	1

3.4.3

Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

3.4.3.1. Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
13	18	7	10	10

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
10	13	2	4	9

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
2220	973	325	482	415

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
2300	612	225	2370	777

Remark : DVV made the changes as per report of extension activities provided by HEI. Provided report of Lantern festival (Entrepreneurship Awareness campaign) for 2014-15, Drainage system, R O Plant, Play Ground Development for 2017-18 and car rally for entrepreneur awareness, Start up India van has not reflect number of students participating.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
204	3	8	5	7

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
203	3	48	4	7

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
195	206	230	183	187

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
191	170	175	111	142

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

Lakhs)

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
22	27	37	33	30

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
10.2	10.7	15.5	13.3	14.0

Remark : DVV made the changes as per Expenditure on the purchase of books and Expenditure on the purchase of journals duly signed by Account Officer.

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

4.2.6.1. Average number of teachers and students using library per day over last one year
Answer before DVV Verification : 165
Answer after DVV Verification: 342

Remark : DVV has made the changes as per average of students using library per day on 5/04/2019, 16/04/2019, 17/04/2019, 18/04/2019 and 20/04/2019. |
|---|---|

| 4.4.1 | Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

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

2018-19	2017-18	2016-17	2015-16	2014-15
471	501	571	497	439

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
260	290	290	275	203	
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| 5.1.1 | Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

5.1.1.1. Number of students benefited by scholarships and freeships provided by the Government year-wise during the last five years
Answer before DVV Verification: |
|---|---|

2018-19	2017-18	2016-17	2015-16	2014-15
1785	1803	1707	1692	1735

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
1785	1803	1706	1691	1735

Remark : Sanction letters of Central Government Merit cum Means scholarship for 2015-16 and 2016-17 not provide by HEI.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
11	12	11	5	7

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
11	12	11	4	7

Remark : DVV made the changes as per number of students benefited by SUES Employees' 50% Tuition Fee Concession Scheme for 2015-16 provided by HEI.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
787	836	563	953	1022

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
44	18	41	162	190

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.

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
7	8	10	8	11

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	0	0	0

Remark : DVV made the changes certificate of Gold Medal - Weight Lifting - Telangana for 2017-18 provided by HEI. DVV has not considered award received from inter college , inter university.

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
42	39	69	58	52

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
35	38	58	52	49

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
5	3	7	4	10

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
3	2	2	0	4

	Remark : DVV has not considered report of IEEE CAS Workshop for 2015-16 and CAS membership development workshop for 2016-17.
6.3.4	Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years 6.3.4.1. Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years Answer before DVV Verification: <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>63</td><td>45</td><td>77</td><td>45</td><td>65</td></tr></table> Answer After DVV Verification : <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>55</td><td>32</td><td>67</td><td>32</td><td>52</td></tr></table>
6.5.3	Average number of quality initiatives by IQAC for promoting quality culture per year 6.5.3.1. Number of quality initiatives by IQAC for promoting quality year-wise for the last five years Answer before DVV Verification: <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>14</td><td>11</td><td>10</td><td>10</td><td>12</td></tr></table> Answer After DVV Verification : <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>11</td><td>10</td><td>10</td><td>9</td><td>9</td></tr></table>
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 Answer before DVV Verification : B. Any 3 of the above Answer After DVV Verification: C. Any 2 of the above Remark : DVV has not considered mail copy.
7.1.8	Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years 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) Answer before DVV Verification: 	2018-19	2017-18	2016-17	2015-16	2014-15
---	---	---	---	---
0.6833	1.4542	3.8097	0.9025	0.6320 | Answer After DVV Verification : | 2018-19	2017-18	2016-17	2015-16	2014-15
---	---	---	---	---
4.31	4.09	7.08	0.35	2.56	 Remark : DVV made the changes as per expenditure on gardening and waste management duly signed by accounts officer.
7.1.10	Number of Specific initiatives to address locational advantages and disadvantages during the last five years 7.1.10.1. Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years Answer before DVV Verification: 	2018-19	2017-18	2016-17	2015-16	2014-15
---	---	---	---	---
1	6	1	3	1 | Answer After DVV Verification : | 2018-19	2017-18	2016-17	2015-16	2014-15
---	---	---	---	---
1	5	1	3	1	
7.1.11	Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere) 7.1.11.1. Number of initiatives taken to engage with and contribute to local community year-wise during the last five years Answer before DVV Verification: 	2018-19	2017-18	2016-17	2015-16	2014-15
---	---	---	---	---
3	7	2	6	9	

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
3	7	2	5	9

2.Extended Profile Deviations

ID	Extended Questions
1.1	Number of courses offered by the institution across all programs during the last five years Answer before DVV Verification : 1036 Answer after DVV Verification : 784
2.3	Number of outgoing / final year students year-wise during the last five years Answer before DVV Verification: <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>891</td><td>873</td><td>917</td><td>937</td><td>896</td></tr></table> Answer After DVV Verification: <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>888</td><td>880</td><td>903</td><td>873</td><td>908</td></tr></table>
3.2	Total Expenditure excluding salary year-wise during the last five years (INR in Lakhs) Answer before DVV Verification: <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>685</td><td>670</td><td>758</td><td>695</td><td>600</td></tr></table> Answer After DVV Verification: <table><tr><td>2018-19</td><td>2017-18</td><td>2016-17</td><td>2015-16</td><td>2014-15</td></tr><tr><td>683.43</td><td>785.37</td><td>301.89</td><td>907.15</td><td>745.22</td></tr></table>

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