



Yearly Status Report - 2018-2019

Part A

Data of the Institution

1. Name of the Institution	Madhav Institute of Technology & Science
Name of the head of the Institution	Dr. R.K. Pandit
Designation	Director
Does the Institution function from own campus	Yes
Phone no/Alternate Phone no.	07512409354
Mobile no.	9926454902
Registered Email	director@mitsgwalior.in
Alternate Email	infomitsgwl@gmail.com
Address	Race Course Road, Gola Ka Mandir
City/Town	Gwalior
State/UT	Madhya Pradesh
Pincode	474005

2. Institutional Status					
Autonomous Status (Provide date of Conformant of Autonomous Status)		06-Apr-2017			
Type of Institution		Co-education			
Location		Urban			
Financial Status		state			
Name of the IQAC co-ordinator/Director		Dr. Pratesh Jayaswal			
Phone no/Alternate Phone no.		07512409300			
Mobile no.		9826561725			
Registered Email		director@mitsgwalior.in			
Alternate Email		iqac@mitsgwalior.in			
3. Website Address					
Web-link of the AQAR: (Previous Academic Year)		http://mitsgwalior.in/IOAC/AOAR2017-18.pdf			
4. Whether Academic Calendar prepared during the year		Yes			
if yes,whether it is uploaded in the institutional website: Weblink :		http://mitsgwalior.in/login/upload/Academic%20Calendar%202019-20.pdf			
5. Accrediation Details					
Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	B++	2.89	2017	12-Sep-2017	12-Sep-2022
6. Date of Establishment of IQAC			27-Dec-2016		
7. Internal Quality Assurance System					
Quality initiatives by IQAC during the year for promoting quality culture					
Item /Title of the quality initiative by		Date & Duration		Number of participants/ beneficiaries	

IQAC		
Departmental progress review to monitor preparedness for accreditation & quality by prominent experts & BoG members (In addition to 02 Academic Audits per year)	30-Mar-2019 1	5246
Improved data compilation and periodic monitoring by preparation & circulation of Academic and other routine activity (feedbacks, ATRs etc.) schedules to departments/office/Exam Section /T&P Cell etc.	16-Jan-2019 75	5465
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8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Institutional	TEQIPIII	NPIU/MHRD, New Delhi	2017 1095	15000000
Institutional	DST-FIST (level 0)	DST, New Delhi	2019 365	5000000
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9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	View File
10. Number of IQAC meetings held during the year :	4
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	View File
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	Yes
If yes, mention the amount	2204025

Year	2018
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12. Significant contributions made by IQAC during the current year(maximum five bullets)

? Environmental Initiatives (esubmission and erepository for PG dissertations UG major project reports, compost maker procured and installed, procurement of Sewage treatment Plant). ? Academic Infrastructure development (Digital Learning Resource Centre/MOOC Centre established, seven Smart class rooms created, eLibrary with established. ? Collaborative Research Projects in association with faculty members from other institutes. ? Conduction of Value Added Courses. ? Placement improvement initiatives: Gate employability skill training, In House summer internship programmes, Provision for getting Honors in parent discipline, Provision for getting Minor Specialization in other disciplines of Engineering, Provision for five interdisciplinary electives.

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

Plan of Action	Achievements/Outcomes
Preparation of Academic Development Plan for quality improvement	? The Academic Development Cell (ADC) was constituted vide order no. 2765 dated 23/8/2018 for the designing, monitoring and updating of all quality enhancement initiatives and practices.
Implementation of Flexible Curriculum	? Board of Studies meetings in September-October & February-March to finalize pre-final year and final year syllabi, with COs & POs. ? Agenda was drafted by the ADC and circulated to all departments for implementation. ? BoS meetings conducted in October 2018 & April 2019 in all departments.
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14. Whether AQAR was placed before statutory body ?

Yes

Name of Statutory Body	Meeting Date
Academic Council, HR Committee	07-Dec-2019

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?

Yes

Date of Visit

21-Aug-2017

16. Whether institutional data submitted to AISHE:	Yes
Year of Submission	2019
Date of Submission	28-Feb-2019
17. Does the Institution have Management Information System ?	Yes
If yes, give a brief description and a list of modules currently operational (maximum 500 words)	<ul style="list-style-type: none"> • IMS (Information Management System) is a cost effective integrated online service that manages Admission (PG), Post Admission Registration, Examination Result Processing, Library and Accounts of the Institute. IMS is running successfully since last two years with the objective to computerize the work and reduce paper work. Services are online and can be accessed via internet. It reduces human effort and provides high security availability of data. Students can register online, pay fee and can see/download their results. IMS provides fully automated Examination result processing system in which marks are obtained in online mode, the TR is generated final mark sheets are immediately visible to the students. • Total 6699 users of 48 different department/sections are registered. The IMS comprises of the following modules: ? IMS(for student) ? MIS(for faculty/Staff) ? ECS(for Examination) ? Library Module ? Admission (PG admission) Module • IMS/MIS is deployed / hosted on the cloud servers and ECS system is installed in the institute, following is the configuration of ECS System. Processor: Core I7, RAM 4GB, 1TB HDD.

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

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

Name of Programme	Programme Code	Programme Specialization	Date of Revision
BTech	110501	Civil Engineering	05/04/2019
BTech	110505	Civil Engineering	05/04/2019

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

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
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1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
BTech	Civil Engineering	01/07/2018
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1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the College level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BTech	Civil Engineering	01/07/2018
BTech	Mechanical Engineering	01/07/2018
BTech	Automobile Engineering	01/07/2018
BTech	Electrical Engineering	01/07/2018
BTech	Electronics Engineering	01/07/2018
BTech	Electronics & Tele Communication Engineering	01/07/2018
BTech	Computer Science & Engineering	01/07/2018
BTech	Information Technology	01/07/2018
BTech	Chemical Engineering	01/07/2018

1.3 – Curriculum Enrichment

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

Value Added Courses	Date of Introduction	Number of Students Enrolled
Android App Development	01/01/2019	10
Programming with Python	01/01/2019	10
C Programming	01/01/2019	17
Nano Technology For Engineering Application	01/01/2019	9
Life Skill for Engineer	01/01/2019	4
Discover Creativity for Engineer	01/01/2019	9
MATLAB for Engineers	01/01/2019	13
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
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BTech	Civil Engineering	5
BTech	Mechanical Engineering	80
BTech	Electrical Engineering	130
BTech	Electronics Engineering	34
BTech	CSE/IT	10
BTech	Chemical Engineering	51
BArch	Architecture	40
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

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

Feedback Obtained
<p>Student feedback analysis and reward/corrective measures taken Feedback Collected for all courses Yes Average Percentage of Students who participate 60 (approximately) Feedback collection process • Online, Twice per Semester • Feedback is collected for all courses, twice in a semester, online for the sake of transparency. • The feedback links are sent to the students by their class coordinators using Google forms so that students can give their responses as per their convenience. Feedback analysis process (Teacher feedback on courses taught) • The feedback for thirteen performance criterion is collected. • The 13 criteria are : 1. Has good teaching ability 2. Teaching style is interactive/involving students 3. Adequate coverage of course content 4. Voice is audible 5. Good communication skills 6. Has ability to control class 7. Has ability to motivate/create interest in subject 8. Relates subject with practical examples 9. Is approachable helping 10. Provides study material/notes etc. 11. Inspires students for good behavior and ethical conduct 12. Use of innovative teaching methods 13. Shows no gender bias • There is space provided in the feedback form for student comments where they can type their general suggestions for improvement of teaching/learning processes. • On the basis of feedback the Faculty Feedback Index (FFI) is calculated on a scale of 5. • The FFI is computed by taking the weighted average of the 13 performance metrics as graded by students on a scale of 1 to 5 for poor/average/good/very good/excellent. • In the individual faculty feedback report, up and down arrows are marked against each performance metrics (by using conditional comparison operators which compare the performance of each metrics with the average teaching performance of the faculty). • This helps in identifying the areas of strength and weakness for each faculty. • The feedback is compiled and analysed centrally by the Dean Academics office for the sake of uniformity in assessment and documentation. • The compiled information (data file summary individual faculty report) is then sent to the respective departments for implementation and corrective action at the HoD/faculty. Basis of reward • As decided by the IQAC of the institute, the faculty members who have FFI score of 4 or more in both feedbacks during a semester are issued letters of appreciation from the Director. Corrective measures • On the basis of the IQAC resolution, the</p>

faculty members who have FFI score of less than 3 in any one of the feedbacks during a semester are issued letters from the Director for improvement of their performance for the overall improvement of quality in teaching learning. • In addition to this the HoD and sometimes the Director also interact with the faculty members to find out the reasons behind their low scores. • If the feedback for a particular faculty is not consistent/not improving over consecutive feedbacks then the institute may arrange for pedagogical or domain specific training for the concerned faculty (in addition to the regular shortterm courses, workshops, conferences etc for knowledge upgradation) •

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BTech	Civil Engineering	120	0	126
BTech	Mechanical Engineering	120	0	127

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2.2 – Catering to Student Diversity

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

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018	3898	257	119	3	97

2.3 – Teaching - Learning Process

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

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Number of smart classrooms	E-resources and techniques used
219	219	42	32	10	15

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

Mentor Mentee system is functioning in the Institute. Under this system as soon as the admission process of UG 1st year is over, a list is prepared where in for every 56 1st year students (mentee) of different branches two senior students (mentor) and one faculty (teacher mentor) are appointed. For making the system more effective, all faculty (Regular NPIU) are involved. Total 174 teacher mentors in the current academic session 20182019. Meetings of Mentor mentee with teacher mentor are organized on I IV Saturday between 4.00 to 5.00 p.m., and additional meetings whenever required to address the issues and concern of mentees. Minutes of the meetings are maintained. Google form is created for record purpose. Based on the requirements, following measures are taken by teacher mentors : • Introduced about facilities available in college, in particular about availability of ebooks in the library. IInd year student mentors were asked to help the first year student for books and notes. • Concerned department has been contacted for the rectification of issues like books not available in library, study material, etc. • Suggestions regarding how to handle college life and how to prepare for exams were given. • Encouragement to explore student club and Extracurricular activities • Whatsapp group were created for better coordination and response. • Students were given a brief idea about GATE GRE. • Guided the students to see

videos of the experiment performed in the lab., and compare it with the process they performed so as to have better understanding and error can be minimized. • Mentor student guided the mentee students on how to prepare for EEES course. Faculty mentor informed the relevance of studying the course on EEES and availability of MOODLE. • Apprised the students about study materials available on internet especially on NPTEL courses and asked the mentee students to prepare their own notes from exams point of view.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
887	219	1:4

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
165	236	0	135	59

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

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2018	Deep Kishore Parsediya	Assistant Professor	NPTEL Elite Certificate for Microwave Theory and Techniques
2018	Awadhesh Gupta	Assistant Professor	NPTEL Elite Certificate for Principles of Digital Communications Topper of this course

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2.5 – Evaluation Process and Reforms

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

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
BTech	Civil Engineering	VIII Sem.	01/05/2019	28/05/2019

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

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
295	10794	2.73

2.6 – Student Performance and Learning Outcomes

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

<http://mitsgwalior.in/deptdetails.php>

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
CE	BTech	Civil Engineering	136	131	96
ME	BTech	Mechanical Engineering	133	130	97

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2.7 – Student Satisfaction Survey

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

<http://ims.mitsgwalior.in>

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

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

Yes

Name of the teacher getting seed money

The institute has launched Innovative Research Scheme (IRS) in year 201819. The proposals were invited from faculty members and scrutiny and sanction is in process.

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

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
National	Nil	NA	01/01/2019	NA

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3.2 – Resource Mobilization for Research

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

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Major Projects	2018	AICTE, New Delhi	1100000	1090000

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

19

3.3 – Innovation Ecosystem

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

Title of workshop/seminar	Name of the Dept.	Date
One Day Workshop "Disaster: Risk and Management"	Civil Engineering	10/11/2018
Workshop Application of Mendeley software in research work	Mechanical Engineering	10/10/2018
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3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
NA	NA	NA	30/06/2019	NA
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3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
NA	NA	NA	NA	NA	30/06/2019
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3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
Mechanical Engineering	1
Electrical Engineering	3
Electronics Engineering	1

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

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Civil Engineering	22	6.70
International	Mechanical Engineering	7	5.29
International	Electrical Engineering	6	6.64
International	Electronics Engineering	16	4.93
International	CSE/IT	25	4.29
International	Chemical Engineering	7	6.17

International	Biotechnology	2	0.56
International	Applied Sciences	13	1.51
International	Architecture	8	7.16
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3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Civil Engineering	1
Mechanical Engineering	5
Electrical Engineering	2
Computer Science and Engineering/Information Technology	3
Applied Sciences	1
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3.4.4 – Patents published/awarded during the year

Patent Details	Patent status	Patent Number	Date of Award
Method and Apparatus for Controlling the Temperature of Solar Dryer"	Published	2019210018	01/01/2019
A Mobile Phone Charger with Flexible Mobile Phone Stand	Published	2019210177	01/01/2019
Low cost waste Paper Material Pulping machine for recycling purpose	Published	2019210293	01/01/2019
Application for Heating Automotive/ Industrial coolant using solar evacuated tubes and system of the same	Published	2018210455	01/07/2018
Pedal Operated Herbal Mosquito Repellent Coil Making Machine	Published	21421	01/07/2018
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3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
An	Hari Mohan	Swarm and	2018	12	Yes	15

Overview and Comparative Analysis of Recent BioInspired Optimization techniques for wind integrated multiobjective power dispatch	Dubey, Manjaree Pandit, Bijaya K Panigrahi	Evolutionary Computation				
Survivability Using Traffic Balancing and Backup Resource Reservation In Multi?Domain Optical Networks	Deepak Batham, Dharmendra Singh Yadav, Shashi Prakash	International Journal of Communication Systems	2018	0	Yes	2
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3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
A New Technique of Gear Mesh Stiffness Measurement Using Experimental Modal Analysis	Raghuwanshi N.K., Parey A	Journal of Vibration and Acoustics, (ASME)	2019	0	1	Yes
Diagnosis and Classifications of Bearing Faults Using Artificial Neural Network and Support Vector Machine	Pavan Agarwal, Pratesh Jayaswal	Journal of Institution of Engineers India Series. C, Springer	2019	6	2	Yes

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

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	8	76	34	184
Presented papers	4	7	0	0
Resource persons	1	14	6	11
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3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Electrical Engineering	Equip. Testing	M/s Takshila Textiles Pvt. Ltd., Gwalior	3688
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3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
Dr. P.S. Bhadouria Mr. Jitendra Aran (EDC Cell)	Assistant Electrician (Construction)	PMKVYTI, AICTE, New Delhi	1770000	25
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3.6 – Extension Activities

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

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Plantation Programme	NSS, MITS Unit and CSE IT Department	41	150
Motivation Lecture on Eye Donation	NSS, MITS Unit and Bio Technology department	41	120
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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
NA	NA	NA	0
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3.6.3 – Students participating in extension activities with Government Organisations, Non-Government

Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
Swachha Bharat	NSS, MITS Unit and Electronics Engineering department	Rally on Swachchhata Pakhawada	4	287
Swachha Bharat	NSS, MITS Unit and Electrical Engineering department	Swachchhaya Bharat Abhiyan Rally	4	244
Literacy Programme	NSS, MITS Unit	Literacy cum Awareness Programme	4	35
Traffic Awareness Programme	NSS, MITS Unit	Traffic Awareness Programme	2	55
AIDS Awareness	NSS Unit, Red Ribbon Club and Electronics Department	Rally on AIDS Awareness	4	155
Gender Equity	NSS Unit, Red Ribbon Club and Mechanical Engineering department	Gender Equality on Mahila Diwas	6	25
Anti Tabacoo Drive	NSS, Red Ribbon Club, Mechanical and Electronics department	Anti Tabacoo Seminar	2	120
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3.7 – Collaborations

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

Nature of activity	Participant	Source of financial support	Duration
NA	NA	NA	0
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3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Internship, Industry Visit,	MoU	Engipress Industries Ltd.	13/08/2018	12/08/2019	50

Project					
Sharing of Research facilities, Internship	MoU	CSIR - CBRI Rorkee	01/09/2018	01/09/2019	5
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3.7.3 – MoUs signed with institutions of national, international importance, other institutions, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
M/s Maa Sharda Structure Supplier Pvt. Ltd., Gwalior	19/07/2018	1. Visit of 132 kV distribution substation at Chinor 2. Installed Conductive Concrete based MSTM Earth Electrode	52
Smart Controls India Pvt. Ltd.	14/11/2018	To conduct industrial training, orientation courses, industrial visits etc.	42
Scientech Technologies Private Limited.	12/11/2018	Research and development in the areas of communication engineering and IoT, Industrial Visit.	49
Ace Antenna India Private Limited, Hyderabad	11/09/2018	Research and development in the areas of Antenna and Microwave circuits, Training	5
Infosys Ltd.	01/06/2018	1. Faculty Enablement Program on LEX based platform 2. Three Week Workshop under Infosys Campus Connect Program in Collaboration with CodeWar Club	66
Bennett University, Greater Noida	28/04/2018	Workshop on AI and Deep Learning	2
MP Police Reform	23/07/2018	Various Projects are under development	52
ABVIIITM Gwalior	01/10/2018	STC on NanoScience and Technology	44

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CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

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

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
73750000	57870153

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Existing
Laboratories	Existing
Seminar Halls	Existing
Classrooms with LCD facilities	Existing
Seminar halls with ICT facilities	Existing
Video Centre	Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Existing
Classrooms with Wi-Fi OR LAN	Existing

4.2 – Library as a Learning Resource

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

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
KOHA	Fully	3.18	2014

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	101886	10188600	0	0	101886	10188600
Reference Books	7512	3756000	45	32947	7557	3788947
e-Books	0	0	230	1100000	230	1100000
Journals	10	19240	9	19150	19	38390
e-Journals	515	566875	337	630039	852	1196914
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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
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All faculty members have uploaded Lecture Plans/Study Material/PPTs/Lecture Notes/Assignments/Quiz etc. on Institute MOODLE.	NA	NA	30/06/2019
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4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MGBPS)	Others
Existing	1129	14	100	14	1	6	8	100	0
Added	102	0	0	0	0	0	0	0	0
Total	1231	14	100	14	1	6	8	100	0

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

100 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Studio Room (Under development)	http://www.mitsgwalior.in

4.4 – Maintenance of Campus Infrastructure

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

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
94839000	77369720	1500000	499315

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

- Physical Infrastructure facilities like Laboratories, Library, Sports complex, Computer Centre etc., are maintained internally by Civil Maintenance Cell of the Institute. Being a Technical institution, there is Assistant Engineer, technical staff and time keeper etc., appointed in the Institute.
- Minor work is carried out by Labours and Artisans appointed on labour rates.
- Major maintenance work is carried out on contract through Annual Maintenance Contract System.
- Other than that for all the facilities like Library, Sports and Computer Centre, a separate maintenance groups are formed to maintain hard and soft structure existing these places.

<http://mitsgwalior.in/mci.php>

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	5 of Amount generated from Concrete Lab Testing 5 of Amount generated from H.W Lab testing 5 of Amount generated from Strength of Materials Lab testing	15	35365
Financial Support from Other Sources			
a) National	Scholarship from M/s Smart Controls (I) Ltd.	2	90000
b) International	NA	0	0
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5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
InHouse Summer Internship Programme on Soft skill development	01/06/2019	451	Conducted InHouse with support from Internal/External Experts
View File			

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

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2018	Soft Professional Skills Training, PDP, GD, PI	312	749	180	506
No file uploaded.					

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

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
0	0	0

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
Accenture	505	141	Trident Group	36	11
View File					

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

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
2018	9	B. Tech. in Electrical Engineering	Electrical Engineering Department	04 MANIT, Bhopal 01 MNIT, Jaipur 01 NIT, Warangal 01 IIIT Delhi 01 RGPV, Bhopal 01 University of Brisbane, UK 01 IIIT, Patna	M.Tech. and MS Programme
2018	4	B. Tech. in Electronics Engineering	Electronics Engineering	1. Anubhav Tripathi, MNIT, Allahabad 2. Shweta Jat, MITS Gwalior 3. Pranav Sharma, Friedrich Alexander University at Erlangen-Nurnberg 4. Abhishek Patel, IIITDM Jabalpur	M.Tech. M.E. MS Programme M.Tech.
2018	1	B.Tech. in Electronics Telecommunication Engineering	Electronics Engineering	1. Yasho Vijay Singh Yadav, IIT Shivpur	M.Tech.
2018	2	B.Tech. in Chemical Engineering	Chemical Engineering	01- Jindal Institute, Raipur 02- Tata Institute of	M.Tech. & Social Entrepreneurship

				Social Sciences (TISS), Mumbai	
2018	1	B. Tech. in Automobile Engineering	Mechanical Engineering	NIT- Surat	M.Tech.
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5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GATE	180
CAT	17
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5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
H.H. Shrimant Madhav Rao Scindia Memorial Cricket Tournament	National	144
Inter Nodal level Basket Ball (Boy`s) Tournament	State	84
International Dance Festival Udbhav, 2018, Gwalior	International	5
Tooryanaad'18 Nukkad Natak	National	28
View File		

5.3 – Student Participation and Activities

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

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2018	15th Udbhav Utsav (An International Dance Festival) Scored Second Position	Internatio nal	0	1	0901AR151028	Prachi Tiwari
2018	Tooryanaad '18 Scored - Third III Prize	National	0	1	TRY191567	Akshara Pandey
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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

• Student representatives take part in the meeting of the Board of Studies • All the student clubs in the institute are managed by student bodies. • Student volunteers are assigned duties for the smooth conduction of campus placements. • Group of students are nominated by the Heads of Department as OBE coordinators who help in dissemination of OBE related information. • Gender Champions for establishing gender equity on campus are nominated by the class coordinators/ Heads of Department from each department, boys as well as girls. • There are placement coordinators and volunteers for managing placement activities. • Student representatives nominated to work as alumni • Senior students works as mentors to junior students each senior student has 3 first year students to mentor. • Student representatives are there in the anti ragging committee of the institute. • There are class representatives in each class nominated by the class coordinators. • Students are involved as office bearers in innovation cell and startup cell. • Two student representatives are members of the IQAC.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

• MITS is a 60 year old institute and its alumni are adorning high positions in academic, government and corporate sectors there are many successful entrepreneurs also. • Alumni association is very active and a number of activities are conducted every year. One Global alumni meet is conducted every year during the founder's day on 14th November. • The alumni association is a big support for the institute. Recently the new Institute Gate was constructed from alumni funds. • Alumni have donated Rs. 10.0 Lac this year for establishment of a lab in the Department of Electrical Engineering. • There are a number of scholarships initiated by the alumni for supporting students who are meritorious and from economically weaker sections of the society. • The alumni help in internships and job placements. • The alumni help in organizing industrial visits and in strengthening industry-institute interaction. • The Alumni Portal has been established for ease of alumni registration. It has been linked with Institute website for online registration and till date more than 3500 registered alumni are registered online. • The alumni give valuable feedback to the institute on curriculum and other general issues. • The alumni representatives are there in many institute bodies like the Board of Studies, Academic Council, IQAC, anti ragging committee • At departments level there are alumni coordinators for the development of Alumni Forums and databases at the department level. • The establishment of Alumni Interaction Committee to explore the possible initiatives for improvement in alumni interaction/participation.

5.4.2 – No. of registered Alumni:

3500

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

265000

5.4.4 – Meetings/activities organized by Alumni Association :

Main Activities of Executive of MITS Alumni Association during July 2018 to July 2019 : • Regular Meeting of Executive of MITS Alumni Association held regularly in 3045 days. • All information's regarding association activity and members activity, achievement and progress is being communicated to all members

through email, Facebook, LinkedIn, etc. The email communication is held under the name of CHOUPAL. ? All accounts are placed before executive and General body and are passed under policy. The accounts are audited by CA Mayur Garg. ? Special Meetings are being organized for Holi Diwali Milan. ? Annual meeting and get together has been organized at Hotel Regency Square and Alumni with family participated. ? Efforts are made to organize sub centre in various cities to perform. Alumni activity and get together at various city level, Participation may be focused on city and its vicinity. ? Discussions were held to help Institute with practical work and development. This was arranged with knowledge of Alumni working in various organization, as on doing individual entrepreneurship, ? Help to few students has been provided in Cash for depositing the Fees of MITS. This fund was raised by contribution from Member. This executed through association and directly through MITS. ? The MITS Alumni Association operates from its permanent office located in MITS Campus. ? Association helped various batches in organizing 25 Silver Jubilee and Golden Jubilee reunion. ? The association helped and encourage Delhi MITS Association in organizing EHSAS on 9th Dec 2018. ? Engineer's day has been celebrated with Dinner in Hotel Landmark. ? Association helped 1972 batch in organizing a meet in Lucknow. ? Association has taken care of the family of Alumni residing at Gwalior and Alumni serving in abroad or any other city. ? Association has also taken care of the Retd. staff in city and maintain good relation and contact with them. ? Helping each other in getting help technically or commercially. ? Giving opportunity for training, placement and updating to student of institute . ? Reunion of silver jubilee pass out batch is organized annually by alumni association in December each year. 1968 Batch Golden Reunion 2018 on Saturday, 10th November 2018. It provides an opportunity for interaction between the alumni and institute, paves way for participation of alumni in development of institute. Alumni scholarship is awarded to meritorious students. At the departmental level, alumni are associated in various activities as follows o Alumni are opted as members of board of studies. Their valuable suggestions are given due consideration while finalizing scheme and syllabi o Invited as keynote speaker/expert lecture in workshop/seminar for the benefit of the students. o Associated in the organization of educational tours of students

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

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

- Powers are given to Class Coordinators of each class to ensure decentralization of all processes. The class coordinators monitor records of attendance, student leaves, forwards the various documents applications of students and gives final permission for appearing in examination. • The proctors and deans have specific well defined duties and they can issue orders concerning to issues in their respective domains. • For each initiative taken by the IQAC separate coordinators are appointed at the department level to help in administration of the different activities such as ? OBE coordinator monitors and takes care of all documentation related to COs and their attainment through direct and indirect assessment, development of rubrics, computation of POs/PEOs, setting of targets, corrective actions after gap analysis, question paper analysis on the basis of LOTs/HOTs Bloom's Taxonomy etc. ? Coordinator for remedial/bridge classes. ? MOODLE coordinator has the responsibility to monitor uploading of learning material on MOODLE and to facilitate effective utilization of the MOODLE for Quiz, Feedbacks assignments etc. ? Web coordinator for departmental webpage management, updating and for providing all relevant information like list of COs, POs, PEOs, Vision, Mission etc. on the departmental web page. ? Coordinator for departmental eNewsletter where all the activities and achievements are posted. ? Coordinator for

feedback collection, proper analysis and corrective action. ? Coordinators for SWAYAM/MOOCs take steps to popularize the online courses among students, create awareness and help them in selecting online electives. They also monitor the SMEs and keep records of all data. ? Internship coordinator for enhancing and managing industry interaction, arranging inhouse internships for I II year students, guiding students for career, arranging internship placements etc. ? Alumni coordinator for enhancing and managing alumni interaction. ? GATE Coordinator for procuring services for the activity and for smooth conduction of the GATE classes. ? Timetable coordinator for preparation of time table and for monitoring all issues/complaints regarding timetable if any. ? Plagiarism administrator has the responsibility to check the BE major/minor project reports, ME/M.Tech dissertation files before allowing for pre submission viva and presentation.

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

Yes

6.2 – Strategy Development and Deployment

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

Strategy Type	Details
Curriculum Development	? Flexible curriculum is implemented w.e.f. 201819 based on the AICTE model curriculum. It has about 1314 departmental core courses, and 05 each of departmental and open elective courses respectively. ? Students can get honours/Minor specialization in parent/ allied department by earning 20 additional credits. ? There are 3 mandatory internships, minor/majors projects and provision of full semester internship. ? One credit is for professional development where weightage for extra co curricular activities during the degree programme is assigned in the last semester. Some electives are taught jointly with industry expert and for 20 courses credits are earned through MOOCs.
Teaching and Learning	? Interactive teaching and group learning is being promoted through group presentations. ? Smart class rooms with interactive panels, projectors, PA system are available permitting faculty to use modern instruction tools, PPTs, Video Clips etc. ? The notes and study material, question banks etc are uploaded on the institute MOODLE. ? Online evaluation and quiz are carried out using MOODLE. ? Feedback on faculty and teaching is taken from students twice a semester and on course content before the BoS meetings, twice a year along with course outcome feedback. ? To promote selfstudy, all students are

compulsorily registered for one departmental elective course on NPTEL.

Examination and Evaluation

? The process from filling examination forms to making seating plans, preparing various data formats, all the work is online on the institute Information Management System (IMS). ? Result declaration, printing of mark sheets etc. is also managed by the IMS ? Examination reforms are implemented in the institute. Clear guidelines for setting question papers are available based on Bloom's taxonomy. The CO attainment is mapped with targets set at the beginning of semester. Digital valuation is implemented and valued answer books are shown to the students. Online question paper feedback is collected the lines are open for 24 hours after the examination.

Research and Development

? It is mandatory for submission of PG dissertations that at least one paper is published in national/international journal or at least one paper is presented in International Conference. There is a clear policy for providing financial assistance to faculty and students for attending conferences within India or abroad. The progress of the PhD scholars is continuously monitored by the Research Advisory Committee (RAC) which exists for each scholar. There is a six monthly review for monitoring the progress of research scholars. Faculty members are encouraged to attend shortterm courses, workshops, conferences and submit research proposals to funding agencies.

Library, ICT and Physical Infrastructure / Instrumentation

? In library there is RFID installed for efficient management. There is a library committee consisting of members from each department who take decisions regarding purchase of books, e books, renewal of subscription of e journals etc. A separate space for digital library is created this year. All class rooms are converted into smart class rooms now for facilitating modern instruction methods. Cameras are installed throughout the campus for monitoring activities in the institute and for security purposes. New basketball court is ready and cricket stadium is under development stage.

Human Resource Management

? Human resources management and its quality assurance is made effective

	<p>through API Appraisal System for faculty and numeric model for appraisal for staff. ? The Career Advancement Schemes are implemented according to the state and AICTE norms, from time to time. ? Faculty members are encouraged to do their PhD. Leaves and other support is granted as per norms. There are clearly defined policies on career advancement and annual appraisal.</p> <p>Written documents on duties and responsibilities of staff, faculty members, various coordinators, HoDs and Deans are available. There is transparency in leave rules, duty leaves deputation for academic/non academic/examination work etc. Personnel files are maintained with all previous records.</p>
Industry Interaction / Collaboration	<p>? The training Placement Cell conducts Industry Conclave every year to facilitate and enhance interaction with industry. Industry representatives are members in the BoG, IQAC and BoS. In each department there is a faculty coordinator for managing the industry collaboration. The departments sign MOUs with industries for internship of students, industry visits, expert lectures by industry personnel, joint guidance of student projects etc.</p>
Admission of Students	<p>? The admission for UG/PG students is online through Directorate of Technical Education (DTE) of the state. All admissions are done according to the guidelines of the state and the central government norms.</p>

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

E-governance area	Details
Planning and Development	<p>? All the tender notices are floated on the institute website. Links for all forms and formats can also be accessed through the website. The submission of these documents is also online through institute portal. The institute development plans along with minutes of all meetings is available on the website for all stakeholders.</p>
Administration	<p>? All the notices are sent through emails.</p>
Finance and Accounts	<p>? All financial transactions such as fee deposition by students, payments for procurement of equipment and services, reimbursements of scholarships, salaries etc are</p>

	conducted online. The accounts are managed through software. There are no cash transactions in the institute.
Student Admission and Support	? Admissions are through centralized counseling on DTE portal. All notices, formats, forms, guidelines are available on website. Communication with students for placement and other purposes is through e mails or MOODLE.
Examination	? From examination form submission to result declaration, all the processes are online through IMS. Valuation, feedback on question paper etc is also online in digital form.

6.3 – Faculty Empowerment Strategies

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

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2018	Shikha Jha	Molecular Beneficial Plant microbe interactions and functional microbial	Hari Singh Gaur, Sagar	3935
2018	Dr. Hari Mohan Dubey	Advance Engineering optimization through intelligent techniques	SVNIT Surat	19838

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

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2018	One Day Workshop How to write Patent IET Student chapter	NA	21/07/2018	21/07/2018	12	0
2018	Gender Sensitization	NA	28/07/2018	28/07/2018	3	0

2018	NA	Advance Office Management Administrative Skills	19/09/2018	23/09/2018	0	22
2019	NA	Training Programme on Lab Practices under TEQIP III	17/06/2019	22/06/2019	0	14
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6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
Short term course on Fundamentals of Robotics and Artificial Intelligence under TEQIPIII	2	04/02/2019	08/02/2019	5
Short Term Programme on Modern Antennas for Wireless Communication	1	06/10/2018	10/10/2018	5
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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
0	50	0	18

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
<ul style="list-style-type: none"> • Personal Counselling • Medical Facility • University Welfare Scheme • Schemes as per MP Govt. Norms • Group Insurance 	<ul style="list-style-type: none"> • Personal Counselling • Medical Facility • Schemes as per MP Govt. norms • Group Insurance 	<ul style="list-style-type: none"> • Personal Counselling • Medical Facility • Financial support under TEQIPIII for participation on seminar, conferences. • Training Internship support for employability, higher education etc. • Conduction of awareness development programs for students overall development

6.4 – Financial Management and Resource Mobilization

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

• The Institute is GrantinAid of M.P. Govt. and receives Annual Block Grant from the State of Madhya Pradesh. Other financial resources are mobilized through Fee collection from the Students for various programs running in the Institute. • Over and above, the Research Grant as well as Modernization of Laboratory Grants are received annually from AICTE, New Delhi, DST, UGC and like bodies of Government of India. • There is a Resident Auditor of Govt. of Madhya Pradesh and the Preauditing system exists in the Institute. However Post Audit is conducted by Office of the Accounts General, Govt. of India periodically. • Presently TEQIPIII funds are being audited by Auditor appointed by SPIU, Bhopal at the State Level NPIU, New Delhi (MHRD) at the National Level. • Funds received from Management and other Government bodies, individual etc., are audited by Chartered Accountant appointed by the Society/Board of Governors of the Institute.

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

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
Institute Alumni	800000	Construction of Gate
View File		

6.4.3 – Total corpus fund generated

40000000

6.5 – Internal Quality Assurance System

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	External Expert Committee	Yes	Audit Committee
Administrative	No		Yes	Audit Committee

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

• ParentTeacher meeting twice a year. • Feedback Collection from parents twice a year. • Parent meeting of the teacher association.

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

• One Administrative Development Programme per year. (Inhouse) • One Technical Training per year. (Inhouse) • Need based domain specific trainings. (External)

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

• Establishment of NPTEL Local Chapter for enhancement self learning culture. • Development and implementation of Flexible curriculum. • Digitization of Examination. • Conduction of Inhouse Summer Internship Programme For I II. • Establishment of Numerical Index based Feedback and Assessment. • Implementation of Bloom's Taxonomy for Mid Term and End Term Assessment. • Induction Programme for I Year. • Conduction of Value Aided Courses. • Development of Smart Class Rooms.

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	Yes
c) ISO certification	No
d) NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2018	Twodays InHouse workshop on assessment of COPOPEO attainment	05/07/2018	05/07/2018	06/07/2018	27
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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

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

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Gender Sensitization	28/07/2018	28/07/2018	24	26

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

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

At Institute, a fundamental change is needed in the way we think about education's role in global development, because it has a catalytic impact on the wellbeing of individuals and the future of our planet. Now, more than ever, Institution has a responsibility to be in gear with 21st century challenges and aspirations, and foster the right types of values and skills that will lead to sustainable and inclusive growth, and peaceful living together. With these objectives, Institute target is to become first Sustainable Development conscious Institution in the state of Madhya Pradesh. The Status Targets for Sustainable Development Goals : At present Institute is able to meet 14 SDGs with following level of achievements : The SDGs Direct Relevance with Education System Institute Achievement Level (High/ Moderate/ Low) Targets for next three years Action taken

1. No Poverty No Low 1. Community services through NCC, NSS camps for awareness.
2. Guidance and support for small scale enterprises through EDC cell.
3. Guidance and support to nearby industries for their sustainable development so that they can provide employment opportunities to others.
4. Research.
2. Zero Hunger No Low 1. Aware people in slum areas about nutrition, food habits and better job opportunities so that they can provide meals to their families and others.
2. Research.
3. Good Health and Wellbeing Yes High High 1. Enhancing health through better infrastructure facility.
2. Medical facilities like medical camps and dispensary for better health of people.
3. Support and guidance through counseling and expert talks to aware people about their well being
4. Quality Education Yes High High 1. Reforms already in action,
2. Implemented outcome based education,
3. Maintaining quality standards as per AICTE, NBA and NAAC accreditation criteria.
4. Adopted

teaching and learning methodologies and curriculum to meet the challenges of learners of 21st century. 5. Gender Equality Yes High High 1. Developed equity action plan and appointed equity coordinator. 2. Providing equal education and employment opportunities for all genders. 3. Safe and secure work environment for women. 4. Vigilance awareness through clubs and committees for women safety. 6. Clean Water and Sanitation Yes High High 1. Clean and safe water facilities through installed Reverse Osmosis (ROs) purifiers. 2. Sewage Treatment Plant has been installed. 3. Wastetocompost plants have been installed. 4. Sufficient number of clean, safe and hygienic sanitation facilities in the campus. 7. Affordable and Clean Energy Yes Moderate High 1. Solar Plant has been installed and capacity will be increased. 2. Collaborative research activities on renewable and clean energy like solar energy. 3. Guidance and support to society for application of affordable energy. 8. Decent Work and Economic Growth Yes Moderate High 1. Implementation of policies for ethical practices in education, research and publications.

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	4
Provision for lift	Yes	4
Ramp/Rails	Yes	4
Rest Rooms	Yes	4

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2018	0	1	23/09/2018	15	Rally on Swachchhata Pakhawada	To protest the use of polythene	287
2018	0	1	29/09/2018	1	One Day Camp for Blinds	To aware motivate the blind students of Aatm Jyoti Avasiya Drasti Heen Girls school.	48
2018	1	0	16/08/2018	5	Literacy cum awareness programme	Continuously running literacy cum awareness programme	35

						for the underprivileged children in the institute premises since year 2011.	
2019	1	0	16/02/2019	1	Awareness Program on Engineering/ Technical Education	Awareness program on engineering education at Shaskeeya High School, Jamaahar Gaon In this programme volunteers aware them about procedure of admission in Engineering/ Technical education , career opportunities in this field, preparation for entrance	28
2019	0	1	23/02/2019	1	One Day Camp for Distribution of Stationary	One day camp at Amar Jyoti School Rehabilitation Centre, Near IT Park, Malanpur for distributing of stationary,	41

						fruits etc.	
2019	0	1	02/03/2019	1	Donation of Drawing Sheet	Donation of rough drawing sheet at aatmjyoti Avasiya D rashtiheen Kanya Vidhyalay	52
2019	0	1	02/03/2019	1	Rally on AIDS Awareness	AIDS awareness	155

7.1.5 – Human Values and Professional Ethics

Title	Date of publication	Follow up(max 100 words)
Faculty guide manual (FGM)	24/08/2019	A faculty guide manual (FGM) is being prepared (for a few identified courses) at the department level. The objective of the FGM is to prepare a strategic Lecture Plan for establishing standardized norms to achieve a desired level of uniformity in the teachinglearning practices of a particular course. Time, value percentage of conceptual, logical, analytical, numerical application orientation teachinglearning including interactive non interactive components are to be ascertained and documented to bring a certain standard to teaching.
Policy on Academic Ethics	24/08/2019	The policy document is circulated to all faculty, students staff of the institute through a Google form, with a "I have read and I accept to abide by these guidelines" at the bottom, compulsory for all to accept.
Policy on Plagiarism	01/06/2019	<ul style="list-style-type: none"> The Institute has procured "Turnitin" plagiarism check software

and it is accessible to all the stakeholders of the Institute. Moreover, at each department, one faculty member has been designated as "Turnitin Administrator" to create awareness, to train others and to handle issues, if any. • In compliance to UGC Guidelines, a Departmental Academic Integrity Panel (DAIP) has been constituted. In addition, Institutional Academic Integrity Panel (IAIP) has also been constituted which will consider the submissions/recommendations of DAIP. Permit up to 1520 overall similarity index as acceptable (using turnitin plagiarism check software) provided that the highest similarity percentage from any one source is not greater than 46. In case of self plagiarism, the permissible percentage may be slightly higher, say at 710.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
"Art of Living SELP" (Student Excellence and Learning Program)	22/04/2019	27/04/2019	60
Induction program on Universal Human Values	16/08/2019	01/09/2019	910

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

• Enhancing use of digital mode, reducing power paper consumption waste management. • Initiatives are taken for recycling the generated waste • Conversion of waste to compost has been started. • Moving towards zero energy buildings. • Reduction in waste generation within the campus. • Installation of plastic crushers to collect plastic waste separately. • Segregation of waste generated in different bins like glass, plastic, wet, dry and construction. • Awareness Camps for low Carbon foot prints. • Paperless working with the use of digital communication and MIS. • Using kitchen garden waste making compost • Effluent treatment of laboratory drain and reuse of the same of gardening. • Rain water harvesting. • Tree plantation programmes are organized. • Following programs are organized by NSS unit of Institute for awareness about ecofriendly

campus: Plantation Programme: National Service Scheme, MITS unit and CSE IT department organised the plantation programme on 15/08/2018. The volunteers of NSS unit, MITS planted the 50 sibling in the institute campus. NSS again organised the plantation programme with first year students during their orientation programme on 25/08/2018 and plant the 90 sibling. Rally on Swachchhata Pakhawada: National Service Scheme, MITS unit and Electronics Engineering Department organised a rally during "Swachchhata Pakhawada" for protest the use of polythene on 23/09/2018 from MITS to Moorar Chauraha and 287 students/ volunteers of NSS unit MITS with programme officer were participated in this event. Swachchhaya Bharat Abhiyan Rally: National Service Scheme unit, MITS and Electrical Engineering department organized a rally on occasion of Gandhi Jayanti on Swachchhaya Bharat from MITS to 7 No Chauraha and take the "Swachchhata Shapath" with 244 students on 02/10/2018. Environmental Awareness Programme: NSS unit organized a awareness program on environment on 24/02/2019. Thirty Five students were participated in this event. This event organized by 2nd year students of Civil Engineering under the supervision of Prof Deepak Rastogi and NSS Programm Officer. Anti Tabacoo Seminar: NSS, Red Ribbon Club, Mechanical and Electronics Department organized a programme on 'Anti Tabacoo' on 09/03/2019 and 120 students were present in this event under the supervision of Prof Amit Aherwar and Prof Pooja Sahu.

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

BEST PRACTICE 1 Title: Faculty Feedback Index (FFI) for improvement in teachinglearning Objectives: Though the academic system is making a transition from teachercentric to learnercentric environment, the class room interaction with the teacher is still one of the most important factors in shaping the student careers. Some teachers are gifted with good teaching abilities while some do not possess these qualities, inherently. The idea behind developing the faculty feedback model was to appreciate the faculty members for their plus points and to inspire them to improve their performance in areas where there is scope for improvement, for increasing the efficiency and effectiveness of the teachinglearning process. **The Context:** The online feedback collection FFI was started in July 2017. It was observed in the IQAC meeting that due to department level involvements, analysis and documentation was not uniform and the level of seriousness was low. Hence, this year feedbacks were analyzed centrally before dissemination to the departments for corrective action. **The Practice:** In each semester, based on 13 parameters two midterm online feedbacks are collected on a scale of 1 to 5, where 1 point is for 'below average' rating, 2 points for 'average' , 3 for 'Good', 4 for 'Very Good' and 5 points for 'Excellent'. Based on student responses, the FFI is calculated for each attribute using the following relation: $FFI[(A \times 5)(B \times 4)(C \times 3)(D \times 2)(E \times 1)] / (ABCDE)$ [Where A: Number of students (NOS) who have rated the performance attribute as excellent B: NOS who have rated the performance as very good C: NOS who have rated the teacher performance for the concerned attribute as Good D: NOS who have rated] The FFI reflects the faculty performance for each attribute on a scale of 5. The feedback analysis and report is shown to the concerned faculty member by the Head of the Department. Appreciation letters were awarded to the faculty members who scored above 4.0 out of 5 in both feedbacks. Similarly, those who received a feedback below 3 were also intimated so that they can improve in the next feedback. **Evidence of Success:** This year 21 faculty members were appreciated, 5 were identified as low performers and the remaining 74 were found to be satisfactory. Most of the faculty members whose FFI was below 3 improved their performance in the next feedback. Similarly, the ones with FFI greater than 4 were encouraged and are since then performing better continuously. The practice has become more effective and students are also able to find the difference in teaching. **Problems Encountered and Resources**

Required: The practice does not require any additional infrastructure as the institute already has good wifi, internet and computational facilities. Initially, the students felt that it may be just a formality and their response was low but now after the appreciation/improvement letters were given to good and comparatively not so good teachers the practice is being taken seriously by both.

BEST PRACTICE2 Title: MOODLE WORKING INDEX (MWI) for monitoring the status of elearning

The Context: MOODLE is an acronym for Modular ObjectOriented Dynamic Learning Environment. It is an online educational platform that provides custom learning environments for students. The faculty members employ MOODLE to create lessons, manage courses, to conduct continuous assessment and to interact with students. The MITSMOODLE was launched on the 15th of August 2017 for providing an elearning environment for interactive teaching, learning and evaluation for both. All the 4155 students, 219 faculty members and staff are registered on MITSMOODLE. A team consisting of 34 faculty members from various departments was constituted to enter the following information and data to coordinate the following TEN activities at the department level:

To enter: course Code course name course wise attendance Course Outcomes for all courses syllabus for all courses detailed lecture plan

To Prepare: and upload course wise Question Banks and upload course files (consisting of PPT, Lecture Notes, tutorial questions, Study material, names of Reference Books etc.) and conduct online Quiz and upload assignments/open ended questions

To collect online feedback for course outcomes for indirect assessment course content for curriculum development exercise, before the Board of Studies meeting

The faculty and students also use MOODLE for academic communication, sending notices, surprise assignments and quiz, etc. The General Enterprising Tendency (GET) test was also conducted using MOODLE. During one GIAN course MOODLE was extensively used. In addition to these activities Faculty Satisfaction Survey, uploading of solutions of end term examination question papers are some other important academic activities which are being facilitated by the MOODLE.

Objectives: The MWI was developed to periodically monitor the utilization of the 10 above listed different applications/features of the MOODLE for each department. The objective of starting this practice this year was to continuously monitor and review the effectiveness and functioning of the Institute MOODLE after completing one year of its implementation. As, without the active participation of all faculty members and students, this medium would not have be successful. In the present learner centric education the students need flexibility of learning in their own time, at their own place. The idea was to motivate and encourage faculty members towards use of modern techniques such as elearning, blended teaching, flipped classes etc. The MWI was expected to make faculty members more organized and better prepared for usage of new teaching aids and tools. It was also noticed that students are not able to take notes in the classes and therefore waste lot of their valuable time in searching relevant content on the internet. The objective of MOODLE was to provide all information regarding the course well in advance to the students and improve their learning experience. The most important reason for developing MWI was to make faculty members familiar and friendly with MOODLE for the benefit of both.

The Practice : At the beginning of the semester each faculty member enters the course(s) being taught, adds the syllabus, other learning material. Then the faculty adds the students for completing the academic interaction circle. Once this is done, the course mentor faculty gets connected with students and vice versa through. The MWI is computed department wise by taking a weighted average of categories (i) Poor (number of faculty using three or less out of the above listed ten features) (ii) Good (number of faculty using more than three but less than eight out of the ten features) and (iii) Excellent (number of faculty using more than seven out of the ten features). The three categories, Poor, Good Excellent were assigned weights of zero, five and ten respectively. The MWI has a maximum value of 10 and it's designed to reflect the comprehensive MOODLE usage for a department. For example if there

are Z number of total faculty members in a department out of which A are in category 'Poor', B are in category 'Good' and C are in category 'Excellent', based on their usage of the ten MOODLE features, then the MWI can be calculated as $MWI = \frac{(A \times 0) + (B \times 5) + (C \times 10)}{Z}$. The MWI for each department was circulated to the faculty three times in a semester. The results are discussed in the meeting of the HoDs and also in the IQAC. Evidence of Success : The development, computation and circulation of the department wise MWI thrice a semester was a huge success. It brought awareness among all faculty members that there is a need of making econtent available to the students in the present teachinglearning scenario. The MWI created a healthy competition between departments and nonactive faculty members started feeling the need for getting active on MOODLE as their non performance on MOODLE was bringing down the MWI of their department. Once the initial hesitation was overcome, the faculty started enjoying this experience of e-teachinglearning. The teachers were now well prepared for the classes in advance and the content uploaded by them becomes readily available for their use also. The students and faculty members welcomed this new digital learning platform in the institute for easy access, dissemination, delivery and evaluation. The MWI is found to continuously rise for each department from beginning of the semester to the end as all faculty members strive to reach the 10/10 mark. Except one or two departments, all are recording a near convergence to 10 by the middle of the semester. Problems Encountered and Resources Required : The institute has competent IT support and infrastructure in place therefore no additional resources were required to start this practice. The only problem which was encountered was resistance from a few faculty members. But slowly through awareness sessions, inhouse workshops and meetings all have now accepted the need of e-learning. The institute has also developed MOOC creation Centre and it is expected that large number of faculty members will be involved in creating their MOOCs for the institute purpose, due to the training of working on institute MOODLE.

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

<http://mitsgwalior.in/instbp.php>

7.3 – Institutional Distinctiveness

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

"Institute Mission to achieve a better and more sustainable future for all Sustainable Development Goals approach." Preamble: The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. The Sustainable Development Goals address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice. The 17 Goals are all interconnected, and in order to leave no one behind. The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The Sustainable Development Goals: The following 17 sustainable development goals are defined with targets which can be measured through indicators. The Sustainable Development Goals 1. No Poverty 2. Zero Hunger 3. Good Health and Wellbeing 4. Quality Education 5. Gender Equality 6. Clean Water and Sanitation 7. Affordable and Clean Energy 8. Decent Work and Economic Growth 9. Industry, Innovation, Infrastructure 10. Reducing Inequality 11. Sustainable Cities and Communities 12. Responsible Consumption Production 13. Climate Action 14. Life Below Water 15. Life On Land 16. Peace, Justice, and Strong Institutions 17. Partnerships for the Goals Sustainable Development Goals in Education System:

The Sustainable Development Goals are now an ambitious and universal agenda to transform our world. The UNESCO has been promoting Education for Sustainable Development (ESD) since 1992. Global issues - such as climate change - urgently require a shift in our lifestyles and a transformation of the way we think and act. To achieve this change, we need new skills, values and attitudes that lead to more sustainable societies. Education systems must respond to this pressing need by defining relevant learning objectives and learning contents, introducing pedagogies that empower learners, and urging their institutions to include sustainability principles in their management structures. The new 2030 Agenda for Sustainable Development clearly reflects this vision of the importance of an appropriate educational response. Education is explicitly formulated as a standalone goal (4). Numerous education-related targets and indicators are also contained within other Sustainable Development Goals (SDGs). Education is both a goal in itself and a means for attaining all the other SDGs. It is not only an integral part of sustainable development, but also a key enabler for it. That is why education represents an essential strategy in the pursuit of the SDGs. Objectives of Institute for Sustainable Development Goals: At Institute, a fundamental change is needed in the way we think about education's role in global development, because it has a catalytic impact on the wellbeing of individuals and the future of our planet. Now, more than ever, Institution has a responsibility to be in gear with 21st century challenges and aspirations, and foster the right types of values and skills that will lead to sustainable and inclusive growth, and peaceful living together. With these objectives, Institute target is to become first Sustainable Development

Provide the weblink of the institution

<http://mitsgwalior.in/instdt.php>

8.Future Plans of Actions for Next Academic Year

(i) NBA Accreditation of all eligible under graduate programs. (ii) NABL Accreditation of Laboratories (iii) Establishment of institutional MOOC Development Centre (iv) Development of MOOCs courses (v) Examination reforms as per AICTE Mandate. a. Online Examination b. Valuation through IP address (user name Password) c. Question evaluation based on OBE guidelines (Competencies, Bloom Taxonomy Performance Indicators) (vi) MoUs with Industries for Internships. (vii) Offering Internships for students of other Institute. (viii) Value aided and skill development courses for students of other Institute. (ix) Starting following under graduate courses: a. UG Pharmacy b. UG Artificial Intelligence Robotics c. UGIT with specialization in IoT d. UG Electrical with minor specialization in IoT e. UG Mathematics Computing (x) Increase in intake in Architecture from 40 to. (xi) Start the minor degree in following field: a. Chemoinformatics b. Data Science c. 3D Printing (xii) Development of Additional infrastructure as academic block (xiii) Development of Business Development Centre (xiv) Development of Tinkering / Innovation Lab (xv) Financial support for Incubation/Innovation/startups (xvi) Development of Lifelong learning platform through online mode (xvii) Development of smart grid simulation lab with DSTFIST level 0 support (xviii) Implementation of the 17 sustainable development goals (SDG) of UN in the campus (xix) Implementation of flexible curriculum with provision for minor specialization in allied discipline (xx) Strengthening of industry interaction by offering courses in collaboration with industry